MEASUREMENT OF ATTITUDES TOWARD COUNSELING: SCALE DEVELOPMENT

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CHAPTER I

INTRODUCTION

Social psychologists have noted that attitudes are one of the most important variables in predicting behavior (Fishbein, 1963; Kiesler et al., 1969). Consistent with this notion, attitudes associated with seeking psychological help have received much attention in the literature of counseling psychology over the past several years. Much of this research has focused on a better understanding of the utilization of mental health services (Ægisdóttir & Gerstein, in press). Other researchers have made an effort to figure out predictors of attitudes toward seeking psychological help. For either focus, it is absolutely essential to use a reliable and valid measurement. Poor measurement imposes a limit on the validity of the conclusions one can reach (DeVellis, 1991).

As DeVellis (1991) noted concerning social sciences, theory plays a vital role in the development of measurement scales. Without a proper clarification of the theoretical background of the latent variable to be measured, each researcher may call the same variable by a different name, or different variables by the same name. Such errors may potentially lead to confusion. For this reason, DeVellis (1991) recommended that upon developing a scale, the first step should be to clarify what is supposed to be measured. DeVellis (1991) also asserted that relevant social science theories should always be considered before developing a scale of attitudes, beliefs, or any other social psychological concept.

Nevertheless, not all scales are developed on the basis of a theory. Most current

instruments that are supposed to measure attitudes toward seeking psychological help lack the theoretical foundation to answer the questions: "What are attitudes?" or "What will be measured by the scale?" Researchers in other applied areas of social psychology such as marketing (Buck et al., 2004; Greenleaf, 1992; Newell et al., 2001), economics (e.g., Furnham, 1991), and politics (e.g., Ohanian, 1991) address general theories of attitudes when they measure their target populations' attitudes toward their services. Researchers in counseling psychology, however, seem to have had limited interest in general theories of attitudes when they measured clients' attitudes toward mental health services.

The purpose of the current study, therefore, is to develop a new measure of attitudes toward counseling services based on attitude theories. A need for developing a new measure can also be justified by the fact that few measures are currently available in this line of research. The most commonly used measure for help-seeking attitudes is the Attitudes Toward Seeking Professional Psychological Help scale (ATSPPH; Fischer & Turner, 1970). This scale was developed to measure individuals' thoughts associated with seeking professional psychological help. Research has been done to test the reliability and the validity of the scale (Cash, Kehr & Salzbach, 1978; Fischer & Farina, 1995; Fischer & Turner, 1970; Ægisdóttir & Gerstein, in press) and many researchers have used this scale for their studies on help-seeking attitudes and behaviors (Johnson, 1988; Morgan, 1992; Tata & Leong, 1994). Still, regardless of its significant contributions to the field of help-seeking research, limitations of the ATSPPH have been noted by some researchers (Dadfar & Firedlander, 1982; Fischer & Farina; 1995; Morgan, 1992; Surgenor, 1985; Ægisdóttir & Gerstein, in press). The first limitation of this scale is its

content validity. Some items appear unrelated to the idea of seeking psychological help – rather, they seem to focus on personal characteristics (Ægisdóttir & Gerstein, in press). For instance, a statement like "Keeping one's mind on a job is a good solution for avoiding personal worries and concern," is more about a respondent's personality characteristics than his or her attitudes toward seeking psychological help (Ægisdóttir & Gerstein, in press). Further, developed in 1970, some of the ATSPPH's terminology is outdated (Fischer & Farina, 1995). For example, current researchers and practitioners in the field of counseling psychology no longer use the term "mental trouble" but use the less stigmatizing term "psychological distress." Likewise, the ATSPPH uses gender-biased pronouns like "A person should work out *his* own problems." Researchers currently would employ a more gender-neutral expression like "*his or her* problems."

Another limitation of this scale is related to its construct validity. As the developers themselves noticed, the four-factor structure seems to be unstable. Specifically, the Interpersonal Openness factor has a low internal reliability coefficient (r = .62) and includes some items with significantly low factor loadings (< .30). In fact, different factorial dimensions were found in subsequent studies, suggesting that the underlying structure of the scale could be unstable (Dadfar & Friedlander, 1982; Fischer & Cohen, 1972; Surgenor, 1985; Yoo, 2005). For example, in an empirical study on high school students and college students' help-seeking attitudes, Fischer and Cohen (1972) reported that the total scale scores were more reliable than responses to each factor.

Although almost four decades have passed since the ATSPPH was developed, few revisions or alternative measures have been introduced and current researchers are still using the old scale without questioning its validity. Some have made efforts to improve

the validity of the measure by revising the ATSPPH (Fischer & Farina, 1995; Mackenzie et al., 2004). For instance, Fischer and Farina (1995) introduced a shorter version of the scale (ATSPPH-Short Form) based on a unidimensional – or "unitary" – model of attitudes, noting the instability of the four-factor structure of the original version of the ATSPPH.

The unitary model of attitudes, however, needs further analysis because it is controversial among researchers (Bagozzi & Burnkrant, 1979). Bagozzi and Burnkrant (1979) summarized three perspectives on the conceptual structure of attitudes. First, there is a single-dimension perspective of attitudes (Hovland, 1952; Kiesler et al., 1969). In early research, attitudes were viewed as a concept that could be measured on a simple continuum of affect from *favorable* to *unfavorable*. For instance, according to this perspective, an individual's attitudes toward psychological services can be measured by simple self-report such as how favorable he or she finds the services. This early single-dimension perspective has been replaced by a second category, the multidimensional perspective of attitudes. Those who hold this view consider attitudes to be a complex construct comprised of an affective component, a cognitive component, and a behavioral component (Norman, 1975). For example, Katz and Stotland (1959) as well as Rosenberg (1968) dismissed the early uni-dimensional view of attitudes by showing that all true attitudes have both cognitive and affective content. While researchers have widely agreed on the cognitive and affective components, they have debated about the behavioral component (Bagozzi & Burnkrant, 1979; Rosenberg, 1968). For example, through a literature review and confirmatory factor analysis, Bagozzi and Burnkrant (1979) showed that neither a three-component model nor a single-component model was appropriate to

describe attitudes. Thus, the third and intermediate category is a two-component perspective, on which the present author bases the present study. It is not that the two-component perspective ignores the behavioral aspect of attitudes. Rather, this perspective suggests that behavioral intentions are predicted by cognitive and affective components. The relationship among behavioral, cognitive, and affective aspects of attitudes in the two-component model can be better understood by considering Rosenberg's (1968) study. Rosenberg took a skeptical view of a three-dimensional model of attitudes by noting that the behavioral component is not evident in practice, but should be relegated to the status of a dependent variable.

Among the theories based on the two-component perspective, the Multiattribute Model of Attitudes (MMA; Fishbein, 1963) delineated the mechanism of beliefs, evaluations, and attitudes. It was not until the 1960s that attention was paid to the psychological processes underlying attitude-behavior correlations. Beginning in the late 1960s, research on attitude formation and change became increasingly dominated by the cognitive perspectives (Eagly & Chaiken, 1993). This trend transformed experimental psychology from a behavioral to a cognitive field. In intensifying the field's tilt toward cognition, many researchers adopted not only the processing notions of cognitive psychology, but also its beliefs that motivational concepts were unnecessary for understanding the processes and outputs of cognition (Anderson, 1985).

The MMA (Fishbein, 1963) and its expanded versions, the Theory of Reasoned Action (TRA; Fishbein & Ajzen, 1975, 1980) and the Theory of Planned Behavior (TPB; Ajzen, 1985, 1987) are embedded in this modern trend. An attitude toward the act is itself a function of behavioral beliefs, which represent the perceived consequences of the act.

Following the mathematical probability theory of expectancy-value, the MMA quantifies consequences by multiplying the subjective likelihood that a consequence will result from the behavior times the evaluation of that consequence. Further, the TRA provides a model explaining psychological processes that mediate observed relations between attitudes and behaviors. According to this model, behavioral intention is a linear regression function of (a) attitude toward the act and (b) social norm. Fishbein and Ajzen (1980) stated that this theory assumes that people form their intentions by thinking about their attitudes and social norms. From this perspective, this theory may be viewed as a kind of elaboration model as it focuses on attitude formation processes. An elaboration model is known as a systematic process theory, while other cognitive approaches to attitudes may be regarded as mere cognitive response theories (Eagly & Chaiken, 1993).

A more comprehensive elaboration model accounting for both attitude formation and change is the Elaboration Likelihood Model (ELM) developed by Petty and Cacioppo (1984). According to the ELM, people use one of two alternative procedures to process persuasive information. One procedure, the central route, involves carefully thinking about and examining information pertinent to the merits of a topic. The other strategy, the peripheral route, involves less cognitive effort and occurs when a person relies on a relatively simple cue in a situation.

Although the ELM is a more recent and comprehensive model of attitude formation and change, the current author believed that the MMA and the TRA would be more useful for the current project for several reasons. First, the MMA and the TRA are more parsimonious than the more complicated ELM. Second, the ELM is more useful to account for attitude change by persuasion, while the MMA and the TRA mainly focus on

how attitudes and behavioral intentions are constructed. Because the purpose of the current project is to develop an instrument to explore the mechanism through which an individual constructs attitudes toward seeking psychological services and to predict intentions to seek the services, the MMA and the TRA seemed to be more applicable than the ELM. Finally, the MMA and the TRA have been successfully employed in attitude scale development in the field of counseling psychology (Halgin et al., 1987; Mackenzie et al., 2004), while the ELM has not.

In the following chapter, a more detailed review of the MMA and the TRA will be presented, and a discussion of their modification and application to the development of a new attitude instrument will be outlined. A review of current measures of help-seeking attitudes will also be presented with a focus on each measure's theoretical background, scale development procedures, and psychometric properties. Furthermore, Chapters III, IV, and V will describe three studies involving the development of the Beliefs and Evaluations About Counseling Scale (BEACS), a new measure of help-seeking attitudes. Study 1 involves a preliminary, qualitative study for item generation. Study 2 focuses on a factor analysis that was conducted to extract latent factors of the BEACS. And finally, Study 3 presents findings regarding the validity of the BEACS using a confirmatory factory analysis, MANOVA, correlation analysis, and a regression analysis.

CHAPTER II

LITERATURE REVIEW

Why do some people seek counseling while others do not? The most plausible reason is likely the differences in levels of distress. In other words, "They that be whole need not a physician, but they that are sick (Matthew 9:12)." This apparently clear reason, however, does not seem to be sufficient to explain an individual's psychological help-seeking behavior. First, level of distress is subjective. Two people who experience the same kind of life events do not necessarily feel the same need for psychological help. Moreover, many of "they that are sick," or who do need psychological help, are hesitant or refuse to seek counseling. Carson and Butcher (1992) reported that less than one-third of those diagnosed as clinically depressed or suicidal sought psychological help. To solve this mystery, researchers in the help-seeking domain have uncovered various factors that are associated with help-seeking behavior (e.g., Fischer & Cohen, 1972). Attitudes are one of them.

Social psychologists have argued attitudes are significant variables that may influence a subsequent behavior (Eagly & Chaiken, 1993). As a result, social psycholgists have continued to make efforts to discern various predictive variables associated with attitudes. Employing this notion, professionals in the mental health field have also been curious about this association. Since the 1950s, these professionals have pursued a line of research on help-seeking attitudes in an attempt to find a way to increase and improve mental health services for prospective consumers (e.g., Kolmer & Kern, 1968; Nunnally

& Kittross, 1958).

Not surprisingly, many variables have been investigated in help-seeking attitude studies. Early studies of help-seeking attitudes focused on the influence of demographic variables. Participants' socioeconomic status was frequently studied in relation to help-seeking attitudes. For example, Redlich, Hollingshead, and Bellis (1955) indicated lower-class persons were less psychologically minded than upper-class people. By contrast, Lurie (1974) suggested that families with higher socioeconomic status were more reluctant to use public mental health services. With respect to gender differences, researchers have found that women consistently hold more positive attitudes toward getting professional assistance for their problems than men (Deane & Chamberlain, 1994; Deane & Todd, 1996; Fischer & Farina, 1995; Fischer & Turner, 1970; Surgenor, 1985). Other demographic variables such as participants' residence (King, Newton, Osterlund & Baber, 1974), previous psychological treatment (Solberg et al, 1994), and racial or ethnic differences (Atkinson, Morten, & Sue, 1998; Leong, 1986; Sue & Sue, 2003) also have been studied in relation to help-seeking attitudes.

Thus far, studies on psychological help-seeking attitudes were reviewed. These studies might provide some answers to the question of which groups are more likely to seek counseling than others. Mere observance of phenomena, however, is not sufficient to ascertain the underlying mechanism on which an individual bases his or her attitudes toward seeking counseling. In the following section, theories of attitudes will be reviewed with the purpose of identifying how an individual's help-seeking attitudes can be understood according to different theories.

Theories of Attitudes

Fishbein (1967) presented a distinction between beliefs about an object and attitudes toward that object. He suggested that attitudes should be conceptualized as learned predispositions to respond to an object in a consistently favorable or unfavorable way, while beliefs can be viewed as hypotheses concerning the nature of the object (Fishbein, 1967). In this framework, beliefs can be viewed in two ways with relation to attitudes: one perspective is that beliefs are the cognitive counterpart of attitudes as an affective predisposition; the other is that beliefs are the cognitive component of attitudes as a multidimensional concept. These two perspectives depend on the way attitudes are defined. Psychologists who define an attitude as an emotional, single-dimensioned construct would uphold the first perspective. From the other perspective, attitudes are considered as a complex construct comprised of affective, cognitive, and behavioral components (Norman, 1975).

Before the 1960's, attitude theories often focused on emotional and motivational forces that were central to attitude development (e.g., Hovland, 1952). Then, in the late 1960s, research on attitude formation and change became increasingly dominated by the cognitive perspectives (Eagly & Chaiken, 1993). Attitude researchers' increased focus on cognition stemmed, in part, from experimental psychology's "cognitive revolution" (Zajonc, 1980). This revolution transformed experimental psychology from a behavioral to a cognitive field. The information-processing approach of cognitive psychology assumes that the stimulus-response link is mediated by a sequence of mental operations or cognitive processes. The effect of this new information-processing approach was also evident in social psychology as individuals began to be viewed as scientific thinkers who

form an attitude toward an object. For instance, a consumer who is purchasing a vehicle would make his or her choice among various alternatives based on his or her attitudes toward the choices. These attitudes, in turn, are formed through cognitive processes of information regarding various attributes associated with the choices such as price, performance, fuel efficiency, reliability etc.

Though the current work focuses on multi-dimensional aspects of attitude formation, there are some situations where an affective, single-dimensional view of an attitude is valid. For instance, a consumer who is purchasing chewing gum does not always bother to ponder all possible pros and cons of choosing an alternative over all other competing brands. The consumer may select a certain brand of chewing gum simply because he or she liked the commercial song about the gum. In this case, this consumer is far from a scientific thinker. The question then becomes, when does a consumer become a scientific thinker and when does he or she chose a solely affective style? According to Engel and Blackwell (1982), chewing gum is a product that requires "low-involvement" while a vehicle is a "high-involvement" purchase. Under high-involvement conditions, judgments are associated with high risks and costs, and thus are likely to require more intensive search efforts (Mowen & Minor, 2001).

The present study is based on the assumption that seeking counseling services might be a "high-involvement purchase." This assumption is supported by previous studies that reported perceptions and fears about seeking counseling (e.g., Kushner et al, 1989; Netzky et al, 1982; Pipes et al, 1985). In the following sections, theories of attitudes based on multidimensional, information-processing models are reviewed with special emphasis given to how these models add to an understanding of help-seeking

attitudes.

Multiattribute Model of Attitudes

The Multiattribute Model of Attitudes (MMA; Fishbein, 1963) helps to explain the process by which an individual forms an attitude through integrating beliefs (cognitive components) associated with each attribute and the evaluations (affective components) of the attributes. This model has been used in a large number of studies in marketing (Buck et al., 2004), economics (Furnham, 1991), and political science (Ohanian, 1991).

Fishbein (1963) suggested that an individual's attitude toward a specific object could be represented by multiplying two variables, strength of belief (b_i) and evaluation of attribute (e_i). Originally, this model was based on the statistical expected value theory. The expected value (or population mean) of a random variable indicates its average or central value. It is the sum of the probability (P_i) of each possible outcome of an event multiplied by its payoff or "value" (X_i). Thus, it represents the average amount one "expects" to win per bet if bets with identical odds are repeated many times. The expected value of a random variable *X* is symbolized by *E(X)* or μ.

$$E(X) = \sum_{i=1}^{n} P_i X_i \qquad [1]$$

For example, suppose a gambler where to win \$10 for either of the two highest numbers of a die (5 or 6) and to lose \$2 for any of the lower numbers (1, 2, 3 & 4). The expected value of this event is computed as follows:

$$E(X) = \frac{2}{6} \text{ x } 10 + \frac{4}{6} \text{ x } (-2) = \$2$$

In the MMA, b_i and e_i correspond to the expected-value theory's P_i and X_i, respectively. In other words, strength of belief (b_i) refers to the subjective probability that a specific object is expected to have a certain attribute (*i*). Evaluation of the attribute (e_i) refers to the perceived value of the attribute. Therefore, an individual's attitudes toward an object are formulated as:

$$A_o = \sum_{i=1}^{n} b_i e_i \qquad [2]$$

where A_o = attitudes toward an object *o* and *n*= the number of attributes associated with *o*.

Suppose a college student is suffering from a psychological concern and is considering whether she would seek counseling or not. She may contemplate several attributes or outcomes of seeking counseling such as alleviation of symptoms, emotional comfort, and monetary costs. And the student has her own beliefs about each of these attributes or outcomes such as "I hardly believe that counseling might alleviate my symptoms," "I think counseling would provide some emotional comfort," and "counseling services should probably be very expensive." Each of these statements can be quantified as follows: "It is a 10% probability that counseling might have therapeutic effects for symptom alleviation," "It is a 65% probability that counseling would provide emotional comfort," and "It is an 80% probability that counseling is expensive."

The next step for this student is to evaluate each of the attributes based on the extent to which she regards it as important or valuable. Again quantitatively, she might think, "Alleviation of symptoms is the most desirable outcome to me as much as *+3* on the scale of *-3* to +3," "Emotional comfort is desirable, but not my main needs. It is just as good as *+1*," and "Overpriced services are unfavorable as much as *-2*."

Comprising all the beliefs and evaluations, this student's attitudes toward seeking

counseling can be estimated as:

$$A_{counseling} = 10\% \text{ x } (+3) + 65\% \text{ x } (+1) + 80\% \text{ x } (-2) = -.65,$$

which implies slightly negative attitudes toward seeking counseling.

Theory of Reasoned Action

Later, Fishbein and Ajzen (1975) revised and expanded their MMA to the Theory of Reasoned Action (TRA) for the purpose of improving its predictive power. In contrast to the MMA, the TRA focuses on attitudes toward performing a behavior concerning an object (A_B) rather than attitudes toward an object itself (A_O). Moreover, according to the TRA, a person's behavioral intention can be more accurately predicted by including a Social norm (*SN*).

$$B \approx BI = A_B + SN + C \qquad [3]$$

where *B* is the behavior, *BI* is the behavioral intention to perform behavior *B*, and *C* is a control or an error, which is a portion of *BI* that is explained by neither A_B nor *SN*.

The first component, A_B, is the actor's attitude toward performing the behavior in question under a given set of circumstances, which is basically equivalent to A_O in Fishbein's previous model (See the formula [2]). The second component, *SN*, consists of a Normative Belief (*NB*) and Motivation to Comply (*MC*). An *NB* refers to an individual's perception of whether other people who are important to the person think he or she should perform the behavior, while *MC* is his or her motivation to comply with the wishes of these referents:

$$SN = \sum_{j=1}^{m} NB_j MC_j \ , \qquad [4]$$

where *NB* stands for a normative belief (i.e., the person's belief that a reference group or individual *j* thinks he or she should or should not perform the behavior); *MC* is the person's general motivation to comply with referent *j;* and *m* is the number of the referents. Therefore, combining the formula [2] and [4], the formula [3] can be algebraically rewritten as follows:

$$B \approx BI \approx \sum_{i=1}^{n} b_i e_i + \sum_{j=1}^{m} NB_j MC_j \qquad [5]$$

The TRA has been used in a variety of contexts, and its validity has been confirmed by a large number of empirical studies (Codd & Cohen, 2003; Díaz-Loving & Villagrán-Vázquez, 1999; Fishbein & Ajzen, 1980; Linnehan et al., 2003; Uomoto & Gorsuch, 1984). For example, Codd and Cohen (2003) assessed the utility of this model to predict college students' intention to seek professional psychological services for alcohol abuse. These researchers reported that *SN* and A_B contributed significantly to the prediction of intention to seek help for alcohol abuse. In addition, Linnehan and his colleagues (2003) used the TRA to identify predictors of certain behaviors that may enhance the effectiveness of working with a diverse set of people. They noticed that individuals must engage in certain behaviors to work effectively in a culturally heterogeneous group. These behaviors include: (a) interacting frequently with members of other groups; (b) discussing issues of diversity and cultural backgrounds; (c) discussing potentially difficult issues with members of other groups instead of avoiding them; (d) avoiding the use of offensive language; and (e) confronting and educating those who use offensive language or tell offensive jokes and stories. These researchers reported that attitudes and social norms were significant predictors of intentions to perform these

behaviors.

Still, in other studies, questions have been raised about the weak explanatory power (Donald & Cooper, 2001), construct validity (Bentler & Speckart, 1979), and content validity (Davis & Warshaw, 2001) of this model. Most of the questions raised have focused especially on the second component of the model, *SN*, which constitutes *NB* and *MC*. A group of researchers critiquing this model suggested that normative components do not have a significant effect on behavioral intentions (Donald & Cooper, 2001; Warshaw et al., 1985). Further, other researchers (Miniard & Cohen, 1981; Shepherd & O'Keefe, 1984) questioned that normative components might not be a unique variable to be considered separately from the subjective ones because excessively high correlations were found between subjective and normative components. Among these arguments, Miniard and Cohen's (1979, 1981) criticism is more applicable to the current study. Through theoretical speculation and an empirical study, these authors pointed out that Fishbein and Ajzen's basis for distinguishing attitudinal and normative influences on behavioral intentions are largely operational:

> Using an example from Fishbein and Ajzen (1975), a belief that "My child thinks I should buy Sugar Puffs" is regarded as normative on the basis that it refers specifically to a referent's expectation regarding the behavior in question. On the other hand, a belief that "Buying Sugar Puffs will please my child" would not elucidate a referent's expectation. (Miniard & Cohen, 1979, p. 313)

Miniard and Cohen argued that Fishbein and Ajzen had offered no evidence that people, in fact, maintain such a distinction in their thinking. Therefore, these authors suggested that the normative component should be understood beyond the "*X* thinks I

should" type of belief. For example, the belief, "Buying Sugar Puffs will please my child" and the belief "My child thinks I should buy Sugar Puffs," while structurally different, may reflect a similar underlying concern with the child's reactions.

In the following section, more detailed speculation about the component *SN* will be discussed. While agreeing that subjective norms are appropriate predictors of behavioral intention, the present author believes that sentence format is highly important and that a higher content validity could be established if *SN* items were reconstructed. The limitation of applying the original forms of the *NB* and *MC* to seeking psychological services will also be discussed, and a modified model will be proposed.

Proposed Model

According to the TRA, items connected with *NB* are structured in a single sentence format, "*X* thinks I should." Likewise, items associated with *MC* are also included in a single sentence format, "I am generally motivated to comply with *X*." This format may work well to describe the social influence on one's behavioral intention in such cases as voting for a political party or purchasing trendy goods. For instance, a student who expects that his or her friends think he or she *should* vote for a Republican candidate may have an increased intention to do so. This is because s/he expects his or her friends to *approve* of his or her voting for the Republican candidate and to be *pleased* by this behavior. In this case, the three propositions "*X* thinks I should," "*X* will approve of my doing," and "*X* will be pleased by my doing" are semantically equivalent.

Still, this semantic relationship may not apply to some social behaviors such as seeking psychological help. A student who expects his friends to think he *should* seek counseling may not necessarily expect them to be *pleased* by his seeking counseling. He

may think, "My friends may tell me to seek counseling if I am seriously distressed; but they will talk behind my back once I go to see a counselor." Likewise, a student who expects her parents to *approve* of her seeking counseling may not necessarily expect them to think she *should* seek the services. She may think, "My parents may approve of my seeking psychological help if I tell them I want it; but they will not initially suggest that I should seek the service."

As these examples show, the sentence "*X* thinks I should" does not sufficiently represent an individual's perceived social influence on his or her decision to seek counseling services. This is especially the case when the individual perceives that the referent *X* does not have knowledge about available professional psychological services. For instance, a respondent may find it difficult to respond to the item, "My parents will think I should or should not seek counseling services." The respondent may think, "Anyway, my parents will not even take into account counseling services because they are not familiar with such services." Therefore, the present author proposes that the *NB* should not be structured in the "*X* thinks I should" format, but in various types of beliefs about referents' anticipated reactions to the respondent's target behavior. Examples of such beliefs include: "My parents will be embarrassed if I seek counseling," or "My friends will think I am a weak person if I seek counseling," etc.

Furthermore, the present author suggests that the *MC*, which measures a respondent's *general* motivation to comply, may not accurately represent a motivation to comply in a specific situation. It is logically true that a person should comply with someone in a specific situation if he or she complies with the person in general. Psychologically, however, this is not always true. A respondent's *MC* scores should vary

by perceived reasons of the *NB*. For instance, a respondent may endorse both items "My coworkers think I should seek counseling," and "I am generally motivated to comply with my coworkers." In this case, the respondent's *SN* scores will be high based on the original TRA. The respondent's motivation to comply with the coworkers in seeking counseling, however, may vary by his or her perceived reasons why they think he or she should seek counseling. If the respondent believes that it is because the coworkers care about him and want to improve his working efficacy, his motivation to comply will increase. In contrast, if he believes that it is because the coworkers regard him as a weak person who cannot deal with his own problems, his motivation to comply will decrease. Therefore, it is proposed that the *MC* should measure instead a respondent's evaluation of a specific reaction of a referent than a general motivation to comply with the referent.

In sum, the present author proposes that the two components of the *SN* should be modified. The first component, *NB*, should not be structured in the "*X* thinks I should" format of belief, but should describe various reactions of the referents to the target behavior. In addition, the second component, *MC*, should focus on the respondent's specific evaluation of the anticipated reactions, rather than a general motivation to comply.

In the MMA, the concept *b* relates to an individual's belief that performing the target behavior will lead to a certain consequence or outcome. It is this author's belief that the statements associated with NB may be viewed similarly to *b* if some structural changes are made to the items. For instance, the statement "*X* thinks I should" may be modified to a statement such as "*X* will show a reaction *R* to my behavior *B*." With this modification, the statements associated with *NB* reflect the individual's belief regarding

outcome. Therefore, in the proposed model, *b* and *NB* will be renamed as *sb* and *nb*, respectively. *sb* stands for beliefs about subjective attributes while *nb* means beliefs about normative attributes. Both *sb* and *nb* items will describe anticipated outcomes of seeking counseling. However, *sb* involves the subjective pros and cons of seeking services, while *nb* focuses on the anticipated reactions of other people.

Likewise, in the proposed model, *MC* can be regarded as the same conceptual entity as *e*, the person's evaluation of the outcome. Therefore, the present author will not use the term *MC* but will use the term *e* in the proposed model. In the following formula [6], *se* and *ne* refer to the evaluations of the subjective attributes and the normative attributes, respectively. In other words, *se* involves how favorable or unfavorable the respondent finds the costs and the benefits of the target behavior, while *ne* involves how favorable and unfavorable they find other peoples' reactions to the behavior.

With the modification of *NB* and *MC*, the distinction between the attitudinal (A_B) and the normative (*SN*) components becomes blurred. In the modified model, both components consist of beliefs and evaluations, and thus can be regarded as attitudinal. The first component focuses on attitudes toward subjective attributes, while the second component is about attitudes toward normative attributes. The present author will call the first and the second components A_S and A_N. Supposedly, both A_S and A_N are the two factors of A_T, a total attitude toward seeking counseling.

In sum, the present author suggests a modification of Fishbein and Ajzen's model as follows:

$$BI \approx A_T = A_S + A_N = \sum_{i=1}^{n} sb_i se_i + \sum_{j=1}^{m} nb_j ne_j \qquad [6]$$

where A_T is an individual's total attitudes, A_S subjective attitudes, and A_N normative attitudes. Moreover, *sb* and *nb* are beliefs about subjective and normative attributes of the target behavior, while *se* and *ne* are the person's evaluation of the attributes. In addition, i and *j* represent an attribute associated with a subjective and a normative belief. Finally, *n* and *m* represent the number of subjective and normative attributes, respectively.

As the formula [6] illustrates, the proposed model is a conceptual merger of the MMA and the TRA. In other words, the proposed model adopts the normative concept of the TRA, but in the format of the previous MMA.

Applying this proposed model, the present research aims at developing a scale to measure attitudes toward seeking counseling services (A_T), which include both subjective attitudes (A_S) and normative attitudes (A_N). Furthermore, A_S is calculated by multiplying subjective beliefs (*sb*) with subjective evaluations (*se*), while A_N is computed by multiplying normative beliefs (*nb*) with normative evaluations (*ne*). For example, the statement "I will feel relieved as a result of counseling" is a subjective belief about the nature of counseling services (*se*), while the statement "It is favorable for me to feel relieved" is an evaluation (*se*) of this belief. Likewise, the statement "My friend will think of me as a weak person if I seek counseling" is the person's belief about social norms (*nb*), while the statement "It is unfavorable for me that my friends think of me as a weak person" is an evaluation (*ne*) of this normative belief. Factoring in these concepts, the new measure proposed in the current research consists of two sets of scales: one for beliefs (*sb* and *nb*) and the other for evaluations (*se* and *ne*). The present author named the new measure the Beliefs and Evaluations About Counseling Scale (BEACS).

Review of Current Measures

This section presents a literature review of major instruments that target similar constructs, such as attitudes or thoughts about seeking counseling or psychological services that are germane to the present study. The first to be reviewed is the ATSPPH (Fischer & Turner, 1970), followed by the Thoughts About Counseling Survey (TACS; Pipes et al., 1985), the Thoughts About Psychotherapy Survey (TAPS; Kushner & Sher, 1989), the ATSPPH-Short Form (Fischer & Farina, 1995), the Beliefs About Psychological Services Scale (BAPS; Ægisdóttir & Gerstein, in press), and the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS; Mackenzie et al., 2004). Finally, studies using measures that have not been standardized will be reviewed.

The Attitudes Toward Professional Psychological Help Scale (ATSPPH)

Scale Development

The ATSPPH (Fischer & Turner, 1970) was designed to measure individuals' attitudes toward seeking professional psychological services. An unspecified number of clinical psychologists in various mental health settings participated in generating statements associated with concerns and characteristics related to seeking professional psychological help. A total of 47 preliminary statements were generated and randomly ordered by a panel of 14 clinical and counseling psychologists and psychiatrists. As a result, 31 items were selected for the initial version of the scale and presented to a group of student participants. Later, 2 items were removed and the remaining 29 items were selected to construct the ATSPPH scale. The ATSPPH uses a 4-point Likert-format scale where the numbering is as follows: 1 (*disagree*), 2 (*slightly disagree*), 3 (*slightly agree*), and 4 (*agree*).

Psychometric Properties

Fischer and Turner (1970) used various samples to test the reliability and validity of the ATSPPH. First, they gave the 29 items to 212 students to test the internal consistency, which was found to be .86. Later, an exploratory factor analysis was conducted with 424 student participants. In this analysis, four factors emerged including Factor I: Recognition of Need for Psychotherapeutic Help (α = .67), Factor II: Stigma Tolerance (α = .70), Factor III: Interpersonal Openness (α = .62), and Factor IV: Confidence in Mental Health Practitioner (α = .74). Fischer and Turner (1970) replicated their factor analyses with three samples including a male sample (n = 180), a female sample (n = 201), and a group with both genders (n = 424). Findings from this analysis suggested that the four-factor structure was stable over the three samples. Nonetheless, the authors pointed out the limitations of using each subscale in measuring attitudes toward psychological help. For instance, some subscales (e.g., Factor III: Interpersonal Openness) contained relatively few items, and consequently, their internal reliability coefficients were modest. In addition, responses to Factor I (Recognition of Need for Psychotherapeutic Help) and Factor IV (Confidence in Mental Health Practitioner) were significantly correlated (r = .58), which implies that these factors might not be discrete. Finally, some items had low loadings with their assigned factors. Examples of these items were: “Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me” (most highly loaded to Factor I at -.23); “Keeping one’s mind on a job is a good solution for avoiding personal worries and concerns” (most highly loaded to Factor III at -.24); and “If a good friend asked my advice about a mental problem, I might recommend that he see a psychiatrist” (most highly loaded to Factor III

at .30).

Fischer and Turner (1970) also examined the known-group validity and criterion-related validity of the ATSPPH. For known-group validity, they conducted *t*-tests to examine the total scores on the ATSPPH of male and female participants, as well as previous users and nonusers of psychological services. It was found that female participants and the psychological service users scored significantly higher on the ATSPPH than their counterparts. For the criterion-related validity test, Fischer and Turner (1970) used the Marlowe-Crowne Social Desirability Scale, *F* scale, Rotter's scale of Interpersonal Trust, Rotter's Internal-External Control, and the Masculinity scale. The Marlowe-Crowne Social Desirability Scale was used to test the ATSPPH's discriminant validity. The other scales were used to test the researchers' hypothesis that certain personality variables would bear a significant relationship to help-seeking attitudes, and therefore, help account for variance in the measure (Fischer & Turner, 1970). As a result, Fischer and Turner found that high ATSPPH scores were correlated with high Authoritarianism (measured by *F* scale) and low External control (measured by Rotter's Internal-External Control) scores for both genders. Social desirability (measured by the Marlowe-Crowne Social Desirability Scale) and Trust (measured by Rotter's scale of Interpersonal Trust) were correlated with scores on the ATSPPH for only males. Finally, Masculinity scores were found to be unrelated to ATSPPH scores.

Advantages and Disadvantages

The availability of the ATSPPH has facilitated research on psychological help-seeking attitudes (Atkinson & Gim, 1989; Cash et al., 1978; Dadfar & Friedlander, 1982; Delphin & Rollock, 1995; Fischer & Cohen, 1972; Hall & Trucker, 1985; Kelly & Achter,

1995; Tata & Leong; 1994). It also has been translated into different languages (Noh, 1995) and used in studies with diverse populations. Moreover, the availability of this instrument has inspired the development of subsequent instruments measuring similar constructs (Fischer & Farina, 1995; Mackenzie et al., 2004; Ægisdóttir & Gerstein, in press).

As reviewed in the previous section, psychometric limitations of the ATSPPH have been proposed by many researchers (Dadfar & Friedlander, 1982; Fischer & Turner, 1970; Mackenzie et al., 2004; Ægisdóttir & Gerstein, in press). The first limitation of this scale is its content validity. Some items appear unrelated to the idea of seeking psychological help – rather, they seem to focus on personal characteristics (Ægisdóttir & Gerstein, in press). For instance, even an individual who has generally positive attitudes toward psychological services is likely to agree with an item statement such as "Keeping one's mind on a job is a good solution for avoiding personal worries and concern," which supposedly represents a negative attitude toward psychological services. Statements like this are more about a respondent's personality characteristics than his or her attitudes toward seeking psychological help. Further, developed in 1970, some of the ATSPPH's terminology is now outdated (Fischer & Farina, 1995). For example, current researchers and practitioners in the field of counseling psychology no longer use the term "mental trouble," but use instead the less stigmatizing term "psychological distress." Likewise, the ATSPPH uses gender-biased pronouns like "A person should work out *his* own problems." Researchers currently would employ a more gender-neutral expression like "*his or her* problems."

Another limitation of this scale is related to its construct validity. As the

developers themselves noticed, the four-factor structure seems to be unstable. Specifically, the following psychometric evidence revealed that the Interpersonal Openness factor is questionable. First, the internal reliability coefficient for this factor was as low as .62. Second, responses to this factor were highly correlated with responses to personality scales (Fischer & Turner, 1970), which implies that this factor might measure personal characteristics rather than a sub-construct of attitudes toward psychological services. Third, some items had significantly low factor loadings. As identified in the previous section, examples of these items were: "Keeping one's mind on a job is a good solution for avoiding personal worries and concerns" (-.24) and "If a good friend asked my advice about a mental problem, I might recommend that he see a psychiatrist" (.30). Although acceptable factor loadings are a topic of discussion among statisticians, Nunnaly (1978) suggested any loading less than .30 is probably too low to be of interest. Finally, different factorial dimensions were found in subsequent studies, suggesting that the underlying structure of the scale could be unstable (Dadfar & Friedlander, 1982; Fischer & Cohen, 1972; Surgenor, 1985; Yoo, 2005). For example, in an empirical study on high school students and college students' help-seeking attitudes, Fischer and Cohen (1972) reported that the total scale scores were more reliable than responses to each factor. Further, Dadfar and Friedlander (1982) found three factors instead of four when analyzing data from a sample of international students at an U.S. university using an exploratory factor analysis. The three-factor model was supported by Yoo's (2005) study on Koreans' attitudes toward psychological services. Finally, Surgenor (1985) proposed a five-factor model for her expanded version of the ATSPPH as she added new items constituting the fifth factor ("Counseling as Growth") for the expanded ATSPPH.

The Thoughts About Counseling Survey (TACS)

Scale Development

While the ATSPPH was designed to measure overall attitudes toward seeking psychological help, some instruments have been developed to assess more specific components of the expectation associated with seeking psychological help, such as fears. Pipes, Schwarz, and Crouch (1985) argued that fear is "a specific and critical type of expectation" (p. 933) and they emphasized the importance of investigating fears in measuring attitudes and expectations about psychotherapy. They developed the Thoughts About Counseling Survey (TACS) which consists of 15 items reflecting fears that clients might have about taking part in psychotherapy.

Four psychologists generated the initial item pool for the TACS based on empirical and theoretical literature and service delivery experience. Redundant, overly abstract, or poorly phrased items were eliminated. The final 15 items were selected to be contained in the TACS. Ninety-one client, and 104 non-client, college students responded to the 15 items on a 5-point Liker-type scale (*I have not been concerned about this issue* [1] to *I have been very concerned about this issue* [5]). The responses were subjected to a factor analysis and other statistical analyses to examine the psychometric properties of the TACS. The results of these analyses are reported in the following section.

Psychometric Properties

In terms of methodological and psychometric issues, it is hard to accurately evaluate Pipes et al.'s (1985) scale because their brief report fails to include vital information about the scale's development procedure and statistical data—particularly Eigenvalues and factor loadings. They also did not report an overall internal consistency

coefficient or test-retest reliability.

Pipes and his colleagues (1985) reported results of exploratory factor analyses as evidence for the factorial validity of the TACS. Using principle factoring with iteration and Varimax rotation, the researchers conducted separate factor analyses with two different samples: clients and non-clients. Three factors were extracted from each sample. Factor structures of the two samples were compared, and the three factors' coefficients of congruence were .95, .78, and .72, respectively. As a final step to extract the factor structure of the TACS, the researchers combined the cases from the two samples. They found two factors, labeled as Therapist Responsiveness (α = .92) and Image Concerns (α = .84). Factor 1 (Therapist Responsiveness) consisted of items associated with relationship concerns and therapist competency. Factor 2 (Image Concerns) focused on concerns that clients had about how they were viewed by themselves or others.

The TACS' known-groups validity was also reported (Pipes et al., 1985). Using a three-way MANOVA (i.e., Sex X Previous counseling experience X Help-seeking status), Pipes and his colleagues (1985) found a significant difference in the TACS scores between clients and non-clients. Other main effects or interactions, however, were not significant. A follow-up ANOVA revealed that non-clients had greater fears than clients for both factors. It was unclear, however, whether this was because a counseling experience had reduced the clients' fears or because less fearful people were more likely to seek counseling.

Advantages and Disadvantages

The TACS may be useful for those who want to specifically investigate clients' fears associated with seeking psychological help. Nonetheless, this scale may have

limitations in that it solely focuses on one aspect of attitudes and thus cannot sufficiently explain many other aspects of attitudes toward seeking help. Some problems were also detected in the TACS' validity and methodology. First, Pipes and his colleagues (1985) reported that they conducted factor analyses separately with client and non-client samples, and they found three factors in each sample. When they combined the cases from the two samples, however, only two factors were extracted—which they named Therapist Responsiveness and Image Concerns. Because the number of factors was inconsistent across different samples, the current author contends more research is needed to validate the two-factor or the three-factor structure of the TACS.

Another problem of the TACS is connected to the item generation procedure employed. The initial item pool of the TACS was generated by psychologists based on literature and service delivery experience. This process can be subjective, and thus the researcher's bias is likely to be involved. In order to reduce such bias, researchers usually employ a group of expert panels. Four psychologists participated in items-generation for the TACS. It is important to note that this is a significantly lower number of experts than have typically been used in the development of other attitude instruments such as the ATSPPH—for which 47 psychologists were employed. In addition, because the experts were not from the target population, the items may not reflect the target's real attitudes or beliefs. The present author believes that an effort should be made to derive items from the target population to discover the meaning of help-seeking attitudes through an understanding of the target population's definition (Heppner, Kivlighan, & Wampold, 1992).

The Thoughts About Psychotherapy Survey (TAPS)

Scale Development

The Thoughts About Psychotherapy Survey (TAPS) was developed by Kushner and Sher (1989) shortly after the TACS. It has been used in subsequent studies (e.g., Deane & Chamberlain, 1994; Deane et al., 1999; Kushner & Sher, 1991; Leong, 1994). The TAPS was developed largely based on the TACS. In addition to the 14 items on the TACS that constitute the two factors *Image Concerns* and *Therapist Responsiveness* (Pipes et al., 1985), Kushner and Sher (1989) added 4 items to the TAPS. These 4 items constituted the third factor of the TAPS, *Coercion Concerns,* as labeled by Kushner and Sher (1989). These four items were generated by the two authors to represent the "humanist-existential concept of fears of change" (Kushner & Sher, 1989, p. 252). Besides the additional items and the factor, another change from the TACS to the TAPS is the terminology. Whereas the TACS refers to mental health professionals as "counselors" and the services that they deliver as "counseling," the TAPS defined mental health professionals more broadly as "therapists" and their services as "therapy." The 19 items of the TAPS were presented to 92 clinical clients and 501 nonclinical participants. These individuals responded to the items on a 5-point Likert-type scale (1 = no concern to 5 = very concerned). The responses were subjected to statistical analyses to examine psychometric properties of the TACS. Results are reported in the following section.

Psychometric Properties

Kushner and Sher (1989) argued that fear of treatment is a multidimensional construct. They validated the three-factor structure of the TAPS through an exploratory factor analysis and MANOVA. Using principal factoring with iteration and Varimax

rotation, three factors were extracted on the basis of multiple criteria. Internal consistencies of Factor I (Therapist Responsiveness), II (Image Concerns), and III (Coercion Concerns) were .92, .87 and .88, respectively. Kushner and Sher (1989) also examined the relations among treatment fears, psychological distress, and help-seeking status (i.e., clinical group vs. nonclinical group). Using MANOVA and a follow-up ANOVA, Kushner and Sher (1989) found significant differences in the TAPS' scores between clinical and nonclinical groups as well as between people with lower versus higher levels of stress. They also reported that the clinical group received lower scores on the TAPS than their nonclinical counterparts. Moreover, the lower stress group received lower scores on the TAPS than the higher stress group. Higher scores on the TAPS indicates stronger fears about seeking psychotherapy. Kushner and Sher's results revealed that psychotherapy users and people with lower stress had less fears than nonusers and people with higher stress did.

In this same study, Kushner and Sher (1989) also conducted a retrospective analysis with the nonclinical sample. They divided this sample into three groups of "avoiders," "seekers," and "never-needed" to examine if each of these three groups' responses to the TAPS varied by previous treatment history and sex. Results of both a MANOVA and an ANOVA showed that avoiders scored significantly higher on the TAPS than did seekers. This result implies that the TAPS effectively differentiates individuals who would avoid psychological services from those who would seek services when in need. An interesting sex-related difference was also found. Women were found to have more fears about seeking psychological treatment than men. Considering previous research findings reporting men's underutilization of psychological services (Fischer &

Turner, 1970; Kelly & Achter, 1995; Price & McNeill, 1992; Tata & Leong, 1994) despite their less fear about seeking the services, the legitimacy of fears as a predictor of help-seeking behavior seems questionable.

Advantages and Disadvantages

The TAPS is an expanded and improved version of the TACS. In addition, it has been proposed through subsequent studies that the TAPS may serve as a useful alternative to the ATSPPH to predict an individual's likelihood of seeking psychological services. For example, Kushner and Sher (1989) found that the TAPS was able to differentiate between treatment avoiders, treatment seekers, and those who were not experiencing psychological difficulties. Deane and Chamberlain (1994) also found a significant negative correlation between responses to the TAPS and the Psychotherapy Questionnaire (PQ; Zwick and Attkinson, 1984). The PQ was designed to measure how accurate or realistic individuals' expectations might be regarding psychotherapy. Deane and Chamberlain (1994) reported that participants who scored high on the TAPS received low scores on the PQ.

Despite this strength over the TACS or ATSPPH-SF, the TAPS also has limitations. First, Kushner and Sher (1989) failed to report reliability for the TAPS. Neither internal consistency nor test-retest reliability was reported. Second, because the TAPS is largely based on the TACS, the two instruments may share the same limitations. For example, 15 out of 19 items on the TAPS were based on the TACS and thus are limited by the low number of participants involved in the item-generation. The additional four items of the TAPS were generated by the two researchers. Such a process may be subjective, and thus the researchers' biases could have affected the item development. For

this reason, research methodologists have proposed that scale developers generate an initial item pool by conducting a preliminary qualitative study with a sample of the target population (DeVellis, 1991; Heppner et al., 1992).

Another disadvantage of both the TAPS and the TACS is that these measures focus on fears, a specific type of attitudes (Kushner & Sher, 1989; Pipes et al., 1985). Therefore, such tools may not sufficiently explain many other aspects of attitudes toward seeking psychological help. In fact, Kushner and Sher (1989) reported that women endorsed more fears on the TAPS than men, but indicated a higher likelihood of seeking services. Because fears typically increase avoidance (Miller, 1944) and hinder an individual's approach to a certain object, this conflicting result may imply a possible weakness of the TAPS in its predictive validity.

Based on these limitations, the present author proposes that a more sophisticated measure is needed to better discover the complicated mechanism through which an individual constructs his or her orientation and intention to seek psychological services. Moreover, as the authors of the TAPS argued (Kushner & Sher, 1989), an individual's decision to seek mental health services may be more accurately predicted by measuring both approach tendencies and avoidance tendencies. However, the TAPS only measures avoidance tendencies. It appears, therefore, that a more comprehensive measurement of attitudes including both avoidance and approach tendencies is needed to predict and explain a person's help-seeking behavior.

The ATSPPH – Short Form (ATSPPH-SF)

Scale Development

Responding to the critics of the ATSPPH (Fischer & Turner, 1970), Fischer and

Farina (1995) developed the ATSPPH-Short Form (ATSPH-SF; Fischer & Farina, 1995) discarding some items from the original ATSPPH scale and changing some terminology. Fischer and Farina (1995) noticed that the four-factor structure of the ATSPPH was unstable, and they believed that the attitude construct could be best defined by a single, unitary measure. With the purpose of developing a brief version of Fischer and Turner's (1970) scale, they first selected 14 items that had the highest item-total correlations (*rs* > .45) out of the 29 items of the original ATSPPH. Minor revisions were also made to the wordings that appeared dated. For instance, a stigmatizing term "mental illness" was replaced by a more neutral term, "personal and emotional troubles." In addition, a gender biased statement such as "a person should work out his own problems" was revised with a gender-neutral term, "his or her own problems." These 14 items were presented to 389 college students to rate on a 4-point Likert-type scale consisting of the alternatives *agree, partly agree, partly disagree, and disagree*.

After a factor analysis, four items on the second factor were dropped, and the ten items on the first factor were chosen to comprise the ATSPPH-SF. These ten items correspond to items from Factor I (Recognition of Need for Psychotherapeutic Help) and IV (Confidence in Mental Health Practitioner) of the original version of the ATSPPH. Detailed information of the factor analysis is described in the following section.

Psychometric Properties

Fischer and Farina (1995) conducted an exploratory factor analysis for the initial 14 items using a Varimax rotation and found that the Eigenvalue dropped below one (1) after two factors. They reported that Factor 1 contained ten items with loadings above .50 on this factor, and their internal consistency was .84. As the internal consistency of the

remaining items was weak, these four items were dropped. Fischer and Farina reported that the scores on the ten items of the ATSPPH-SF were normally distributed, and the item-total correlations averaged .54. Fischer and Farina labeled this single factor of the ATSPPH-SF as Willingness to Seek Help.

Biserial correlation analysis was employed to test the known-group validity of the ATSPPH-SF (Fischer & Farina, 1995). As a result, the female participants scored higher on the ATSPPH-SF than their male counterparts. This result is consistent with previous studies reporting that women have more positive attitudes toward seeking psychological services than men. Test-retest reliability was established by re-administering the test following a one month delay and results indicated a high test-retest correlation (n = 32, r = .80). A test of concurrent validity using the original version of the ATSPPH revealed a significant correlation between responses to the original version and the shortened version (r = .87).

Advantages and Disadvantages

The development of the ATSPPH-SF solved some limitations of the original scale: The terminology was updated, and the items with low validity and reliability were removed. Despite the improvement, the ATSPPH-SF also has limitations. First of all, its single factor assumption lacks a theoretical base because most social psychologists support multidimensional models of attitudes in general (Bagozzi & Burnkrant, 1979; Katz & Stotland, 1959; Norman, 1975; Rosenberg, 1968). In addition, since most of the population in Fischer and Farina's (1995) study were college freshmen, future research needs to replicate the factor analysis with a more diverse sample (Williams et al., 2002). Finally, compared to the original full-form of the ATSPPH, far fewer studies have been

conducted with the shortened version during the last ten years. As a result, researchers continue to use the original scale, raising questions about the usefulness of the ATSPPH-SF. The low utility of the ATSPPH-SF may be due to its excessive brevity. Researchers may think the ten-item, single-factor version of the scale does not sufficiently measure various aspects of attitudes toward seeking psychological services. These concerns may be valid as experts in scale development caution prematurely discarding items from scales (DeVellis, 1991).

Beliefs About Psychological Services (BAPS)

Scale Development

The Beliefs About Psychological Services (BAPS; Ægisdóttir & Gerstein, in press) is another scale developed based on criticisms about the ATSPPH. Noting the ATSPPH's shortcomings, Ægisdóttir & Gerstein (in press) constructed the BAPS with the aim of developing a scale with strong validity and reliability. To generate the initial item pool, they reviewed items on the ATSPPH and selected 14 statements that referred directly to the characteristics of a mental health provider and the therapy situation. In most instances, Ægisdóttir and Gerstein changed the wordings of these items "to be more current, to refer to psychologists only, and to refer to only one idea" (Ægisdóttir & Gerstein, in press). In addition to adapting the ATSPPH, they added new items by conducting a preliminary survey with a panel comprising 9 psychologists and 30 students.

As a result, a total of 29 initial items were derived and randomly ordered to present to 243 college students. The items were accompanied by a 6-point Likert-type scale where each of the points represented from 1 (*strongly disagree*) to 6 (*strongly agree*). Through item analyses and exploratory factor analyses, 18 items were selected.

These items were later confirmed through a confirmatory factor analysis.

Psychometric Properties

Ægisdóttir & Gerstein (in press) examined psychometric properties of the BAPS with 243 students. To evaluate the factorial validity of the BAPS, responses to the original 29 items were subjected to an exploratory factor analysis using Principal Axis factor extraction with Varimax rotation. Eleven of the 29 items were deleted because they loaded on two factors. The remaining 18 items loaded uniquely on one of the three factors. These three factors were labeled as Intent, Stigma tolerance, and Expertness. The Intent factor reflects a person's willingness to seek psychological services. The Stigma Tolerance factor refers to the stigma associated with seeking psychological services. Finally, Expertness refers to the unique characteristics of professional counseling.

Results of the item analysis for the 18 item BAPS showed that the item to total scale correlation ranged from .29 to .69. Cronbach's alpha for the total score was .88 and each item was found to contribute significantly to the BAPS total score as evidenced by the decreased Cronbach's alpha after deleting an item. Cronbach alphas were .82, .78, and .72 for Intent, Stigma Tolerance, and Expertness, respectively.

The scale developers of the BAPS conducted MANOVA and ANOVA to examine the BAPS' known group validity. They reported that the BAPS' total score was able to discriminate between men and women, as well as persons with and without counseling experience. Women had higher total BAPS scores than men and persons who had sought psychological services had higher scores than those who had not sought services.

Ægisdóttir and Gerstein (in press) further assessed the BAPS' factorial stability using an independent sample of participants. The 18 items of the BAPS were submitted

to a confirmatory factor analysis. Based on the results of the confirmatory factor analyses, the scale developers concluded that a three-factor solution with 18 items was the best fit for the BAPS. The scale developers also reported the BAPS' convergent validity and discriminant validity by administering the BAPS along with two other scales, Marlow-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlow, 1960) and the ATSPPH, to 183 additional undergraduate students. The responses to the total scale and the three subscales of the BAPS were highly correlated with those to the total scale and the four subscales of the ATSPPH, providing evidence for the BAPS' convergent validity. Further, the correlation between responses to the BAPS and those to the M-C SDS were not significant. This finding supported for the BAPS discriminant validity. Finally, the BAPS was administered to 59 additional students in two group sessions twice with a two-week interval in between. Significant test-retest reliability coefficients for the BAPS total (.87) and the three subscale scores (.88, .79, & .75, respectively) were found.

Advantages and Disadvantages

The present author found the BAPS to be methodologically and psychometrically stronger than the previously mentioned instruments. First, the initial items of the BAPS were not solely derived from the researchers, but from a diverse panel including 30 students and 12 psychologists. Second, the reliability and validity of the BAPS was established through various statistical analyses. For instance, Ægisdóttir and Gerstein (in press) reported internal consistency reliability coefficients ranging from .85 to .90 for the total score and test-retest reliability of .87 over 2 weeks. Moreover, the three-factor model of the BAPS was validated through both exploratory and confirmatory factor analyses (Ægisdóttir & Gerstein, in press). The test constructors also reported known-

group validity for the BAPS showing that persons with prior counseling experience received higher scores on the BAPS. Finally, they reported convergent and discriminant validity for the BAPS using the ATSPPH (Fischer & Turner, 1970) and the M-C SDS (Crowne & Marlowe, 1960), respectively.

The BAPS also has a sound theoretical foundation. It measures multidimensional aspects of attitudes toward seeking psychological services, while the TACS, TAPS, and ASPPH-SF focus on a single aspect of the larger construct—attitude. Few instruments outside of the BAPS have been developed with consideration and application of a social psychology theory in a counseling psychology domain. Ægisdóttir and Gerstein (in press) found that the Theory of Planned Behavior (TPB; Ajzen, 1985, 1987) was a useful model to explain a person's psychological help-seeking behavior and attitudes. They employed the key concepts of the TPB, "attitudes," "social norms," and "perceived control," when constructing factors for the BAPS. For instance, as reported in their study, the Expertness factor and the Stigma Tolerance factor corresponded to the two constructs "attitudes" and "social norms," respectively.

As with all instruments, however, the BAPS has several limitations. Although the factors linked with the BAPS correspond to the components of the TPB, the present author believes that the "attitudes" and "social norms" regarding the seeking of psychological services may include more than the constructs measured by the subscales of the BAPS. For instance, "perceived expertness of psychologists," measured by the Expertness factor of the BAPS my not be sufficient to explain an individual's general attitudes toward seeking psychological services. Other aspects of attitudes such as concerns related counseling process, financial affordability, and accessibility may also

represent the "attitude" component of the TRA, and should be added as additional factors. Likewise, the current author also believes that the "social norms" should include not only the social stigma but also any social pressure or support that may motivate an individual to seek psychological help.

Finally, it should also be noted that the BAPS shares many items with the ATSPPH. Ægisdóttir and Gerstein (in press) reported that 14 out of the 29 initial items of the BAPS were derived from the ATSPPH. In the final version of the BAPS, 10 out of the 18 items were adapted from the ATSPPH. Sharing items with the ATSPPH does not automatically lead to a limitation of the BAPS. Nonetheless, the present author proposes development of a new scale based on a new item-pool generated from more current populations. In this way, the new scale will include updated constructs or statements and exclude outdated ones.

Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS)

Scale Development

Most recently, Mackenzie, Knox, Gekoski, and Macaulary (2004) developed a new measure of attitudes toward seeking psychological help named the Inventory of Attitudes Toward Seeking Mental Health Services (IASMHS). The IASMHS is similar to the ATSPPH-SF and the BAPS in that it is a revision of Fischer and Turner's (1970) ATSPPHS. The IASMHS, however, distinguishes itself from the other measures for its strong foundation on a social psychological theory of attitudes: the Theory of Planned Behavior (TPB; Ajzen 1985). Mackenzie and colleagues (2004) noted some conceptual and methodological limitations of the ATSPPH, and as a result, they adapted the scale to address each of the concerns. For instance, they replaced the 4-point rating scale of the

ATSPPHS with a 5-point scale to provide the participants with more options. They also changed some of the wording of the ATSPPHS items that were found to be dated (Fischer & Farina, 1995; Mackenzie et al, 2004). Besides the adaptation of the original scale, they extended the ATSPPHS to include new items according to the TPB with the aim of improving the inventory's ability to predict the use of mental health services. According to Ajzen's (1985) TPB, the prediction of a behavior can be improved by considering subjective norms and perceived behavioral control over this behavior along with general attitudes toward the behavior. Using this notion, Mackenzie and colleagues (2004) added some items measuring these two constructs. Social norm items were designed to assess perceptions about how some important referents would react if the participant were to seek professional psychological help. Thus, "perceived behavioral control" referred to subjective beliefs regarding the individual's ability to maintain control over potential obstacles when attempting to achieve one's goals (Ajzen, 1985). A total of 41 items including the 29 items from the original ATSPPH and the 12 new items were presented to 322 participants. The responses were subjected to statistical analyses (see the following section), which resulted in the final 24 items of the IASMHS.

Psychometric Properties

In order to select the items to remain in the final version of the IASMHS, Mackenzie et al. (2004) calculated the Cronbach's coefficient alpha, item-total correlation, and alpha if an item was deleted. They also conducted a maximum likelihood factor analysis and examined fit indexes including the root mean square error of approximation (RMSEA) and the expected cross-validation index (ECVI). After deleting the 16 out of the 41 items that violated inclusion criteria, the remaining 25 items were submitted to an

exploratory maximum likelihood factor analysis with direct quartimin rotation. As a result, one item was dropped because it had the lowest overall factor loading and dropping it created three factors with an equal number of items. The final 24-item, three-factor inventory included 17 of the 29 items from the ATSPPHS as well as 7 of the 12 items created to measure subjective norms and perceived behavioral control regarding seeking mental health services. The scale developers reported that the three factors accounted for 42% of the variance explained. They also reported that RMSEA was .039, indicating excellent goodness of fit, and ECVI was 2.25, suggesting a higher likelihood of cross-validation than the 41-item factor analysis.

The test developers labeled the first, second, and third factors *Psychological Openness, Help-Seeking Propensity*, and *Indifference to Stigma*, respectively. The Psychological Openness factor referred to the extent to which individuals are open to acknowledging psychological problems and to seeking professional help for them. The Help-Seeking Propensity factor reflected the extent to which individuals believe they are willing and able to seek professional psychological help. Finally, the Indifference to Stigma factor reflected the extent to which individuals are concerned about stigma and labeling associated with psychotherapy.

Internal consistency coefficients for the full-scale IASMHS and the three factors were .87, .82, .76 and .79, respectively. The three-factor structure of the IASMHS was tested and confirmed through a confirmatory factor analysis with independent data from different samples using LISREL. Convergent and discriminant validities were also examined as was test-retest reliability. As an evidence of convergent validity, the developers examined the relationship between the IASMHS scores and past use of

professional help or intentions to use mental health services using Pearson correlation coefficients. Past use of professional help was coded 1 (*No*) or 2 (*Yes*), and intentions to use mental health services were scored on a 7-point rating scale ranging from 1 (*very unlikely*) to 7 (*very likely*). For the community sample, the correlations between these two variables and the total IASMHS scores were .33 and .38, implying significant correlations in between at the .01 level. In regard to discriminant validity, the developers hypothesized that the IASMHS should be better able to predict intentions to seek professional help than nonprofessional options. The researchers found that intentions to talk to family or friends were only weakly related to help-seeking attitudes (r = .08 for the community sample, and .19 for the student sample). Finally, the IASMHS was administered to 23 additional students twice with a three-week interval in between. Significant test-retest reliability coefficients were found for the total IASMHS score (r = .85, $p < .01$) and the three subscale scores (r ranges from .64 to .91, $p < .01$).

Advantages and Disadvantage

The IASMHS has methodological and psychometrical strengths. Mackenzie and colleagues (2004) made various changes to adapt items from the ATSPPH to address conceptual and methodological concerns. For instance, they changed many items to reflect the gender-neutral wording now standard in the field. They also changed items to include a wider range of mental health professionals, expanded the rating options from a 4-point to a 5-point rating scale, and employed more current statistical techniques in their analyses. These changes successfully addressed most of the concerns about the ATSPPH that had been raised by previous researchers (Dadfar & Friedlander, 1982; Fischer & Turner, 1970; Fischer & Farina, 1995).

The IASMHS also has a sound theoretical foundation. Mackenzie and colleagues (2004) noted the importance of considering and applying a social psychology theory when developing a measure of help-seeking attitudes in a counseling psychology domain. They employed Ajzen's (1985) TPB with the purpose of improving the prediction of help-seeking behavior from attitudes. According to this theory, a more accurate prediction of mental health service utilization can be achieved by knowing not only the "attitudes" toward the service, but also "subjective norms" and the "perceived behavioral control" regarding seeking the services. Noticing that the ATSPPH only measures the "attitudes" among the three components of the TPB, Mackenzie et al (2004) added new items to measure "social norms" and "perceived control." Finally, the IASMHS contained 24 items and 3 internally consistent factors: Psychological Openness, Help-Seeking Propensity, and Indifference to Stigma. The developers proposed that these three factors of the IASMHS corresponded to the three components of the TPB because: (1) most items of the Psychological Openness factor are from the ATSPPH ("attitudes"); (2) the items of the Help-Seeking Propensity factor were designed to measure the extent to which individuals believe they are able to seek help ("perceived behavioral control"); and (3) the items of the Indifference to Stigma factor reflected the extent to which individuals are concerned about others' reaction to their seeking psychological help ("social norms").

Although this correspondence seems logical, the construct "attitudes" toward seeking psychological services may include more than "psychological openness," measured by the first factor of the IASMHS. For example, outcomes, or barriers of seeking psychological services, should be added as an additional factor for the "attitude" component of the TPB. Further, the items connected to the psychological openness factor

are from the Interpersonal Openness factor of the ATSPPH. These items have been a topic of discussion among researchers (Fischer & Turner, 1970; Fischer & Farina, 1995; Yoo, 2005; Ægisdóttir & Gerstein, in press) for their weak content validity, low factor loadings, low internal consistency within the factor, and low discriminant validity evidenced by their high correlation with personality measures.

Further, although Mackenzie et al (2004) adopted the three components of the TPB as a conceptual foundation of the IASMHS, they did not use the formula of the theory when measuring each of the components. For instance, according to the TPB, attitudes are computed by multiplying beliefs (from *unlikely* to *likely*) and evaluations (from *favorable* to *unfavorable*). In addition, social norms are calculated by multiplying normative beliefs and motivation to comply. The three factors of the IASMHS, however, do not reflect these multidimensional, mathematical structures of the TPB. Rather, the IASMHS is formatted in a single-dimensioned scale from *disagree* to *agree*.

Other measures

Some researchers have used unpublished scales or open-ended questions to investigate attitudes toward seeking psychological help (Fall et al., 2000; Halgin et al., 1987; Nickerson et al., 1994). For instance, Fall et al. (2000) examined peoples' confidence in various mental health professionals by ranking confidence levels across five case vignettes. Nickerson et al. (1994) used the Help-Seeking Attitude Scale (HSAS; Plotkin, 1983) in their study focusing on the relationship between mistrust of Whites, opinions about mental illness, and help-seeking attitudes among Black college students. The HSAS consists of 40 items related to concerns about seeking psychotherapy. Reliability and validity of this scale were examined and reported in an unpublished

manuscript (Plotkin, 1983). For instance, Plotkin found a K-R 20 internal reliability estimate of .87 for the scale. Also, Plotkin found evidence of the construct validity of the scale in that responses to this scale correlated positively and significantly (r = .49) with responses to another help-seeking scale, the ATSPPH (Fischer & Turner, 1970). Nickerson et al. (1994) modified the HSAS for their study to assess Black students' attitudes toward being seen by a White therapist. Nickerson et al. reported that Cronbach's alpha was .87 for the HSAS as modified for their study.

The alternative instruments just mentioned do not seem to be a good substitution for the previous measures because their reliability and validity have been insufficiently reported. One study conducted by Halgin et al. (1987), however, seems to be worthy of mention since the TRA (Fishbein & Ajzen, 1975, 1980) was used as a theoretical background for measuring attitudes toward seeking psychological help. Halgin et al. (1987) named the instrument the Decision Measure. They examined the relation of depression and a help-seeking history to scores on this instrument. Since the present author aims at developing a new scale based on a social psychological theory of attitudes, Halgin et al.'s (1987) study is reviewed with special attention given to how one might apply this theory when constructing a measure of attitudes toward seeking psychological help.

Scale Development

Halgin et al. (1987) investigated the relation of help-seeking history, sex, and depression in college students' attitudes and intentions about obtaining professional psychological help. Instead of using an existing measure, they constructed a scale to measure attitudes and intentions to seek psychological help employing Fishbein and

Ajzen's (1980) model. In this model, an intention to engage in a particular behavior (e.g., seeking professional psychological help) is largely determined by the individual's attitude toward the behavior. Attitudes then are a function of specific beliefs regarding the consequences of performing the behavior and evaluations of those consequences (Fishbein & Ajzen, 1980).

Based on this model of attitudes, Halgin et al.'s (1987) decision measure consisted of three parts. The first part was an intention question. This part was a single item measuring an intention to seek professional psychological help: "I intend to seek psychological help within the next month." Item anchors were *highly unlikely* (-3) and *highly likely* (+3), and the middle choice was *neither*. The second part of the decision measure was a global attitude scale presented in a Semantic Differential Scale format. Respondents rated the statement, "If I felt psychologically distressed, seeking professional psychological help within the next month would be…" This item was measured using the following six bipolar adjective items: (a) good to bad (with +3 representing *extremely good* and -3 representing *extremely bad*), (b) rewarding to unrewarding, (c) beneficial to harmful, (d) wise to foolish, (e) pleasant to unpleasant, and (f) interesting to boring.

Finally, the third and main part of the decision measure was a belief and evaluation scale designed to obtain the summative score of the outcome probability and evaluation. To generate items Halgin et al. (1987) conducted a pilot study to assess college students' salient beliefs about seeking professional psychological help. One hundred and twenty seven undergraduate students were asked to read a vignette describing a depressed person and to list advantages and disadvantages of seeking

professional psychological help if depressed. Responses were reviewed and grouped based on their content by the developers. This resulted in categories of advantages and disadvantages of seeking professional psychological help. These 14 salient beliefs were used to form a pair of related items, an outcome probability item, and an outcome evaluation item. Each outcome probability item consisted of a rating of the likelihood of occurrence of a particular outcome of seeking help. An example of the outcome probability items is, "Seeking professional psychological help within the next four weeks would give me an objective opinion about my concerns" (scored from extremely likely, +3, to extremely unlikely, -3). Each corresponding outcome evaluation item consisted of a rating from good (+3) to bad (-3) of the same outcome. For example, an outcome evaluation item is constructed as follows: "Obtaining an objective opinion about my concerns is…." Scores of corresponding outcome probability items and outcome evaluation items were multiplied, yielding 14 products (possible range = -9 to +9). To simplify the data, Halgin et al. (1987) summed these products to form a single index, called the *summative score of the outcome probability and evaluation items*.

Psychometric Properties

Halgin et al. (1987) reported that the six items composing the global attitude score, the outcome evaluation and outcome probability items, and the products of the outcome evaluation and probability items had coefficient alpha values of .78, .83, and .83, respectively. They also conducted a MANOVA to investigate the between-groups differences (e.g., depressed group vs. non-depressed group; help-seekers vs. non-seekers; men vs. women) on the decision measure scores. It was found that the depressed seekers had the most positive overall beliefs and the non-depressed non-seekers had the least

positive beliefs. Halgin et al. also performed a discriminant analysis to determine which items were the best discriminators between non-depressed students and depressed students. Five items maintained a minimum *F* value of 4.00 and were, therefore, entered into the function. An overall classification accuracy level of 76.07% was achieved, with 72.2% of the non-depressed group and 75.9% of the depressed group correctly classified (Canonical correlation = .59, Wilks's lambda = .65, χ^2 (14, N = 126) = 44.53, $p < .001$).

Advantages and Disadvantages

Halgin et al.'s (1987) study aimed at investigating the correlation between help-seeking attitudes and two other variables including help-seeking history and level of depression. Measuring help-seeking attitudes in this study, Halgin et al constructed the Decision Measure using Fishebein and Ajzen's (1980) model. However, reliability and validity for the Decision Measure were not sufficiently examined since the purpose of Halgin et al.'s (1987) study was not scale development. Therefore, it is premature to use this scale in other studies.

Nonetheless, this measure has important implications for future researchers who wish to develop a new help-seeking attitudes scale. First, this measure is based on a strong social psychological foundation. As Mackenzie et al (2004) pointed out, most research in psychological help-seeking attitudes had failed to incorporate social psychological theories of attitudes. Halgin et al's (1987) study seems to be an exemplary work of applying a social psychological theory to scale development in the counseling psychology domain. Second, Halgin et al's (1987) did not only adopt concepts of the TRA but also strictly followed the formula explaining how attitudes are computed. Although there were attempts to adopt the TRA or the TPB to a scale development at the

conceptual level (Mackenzie et al., 2004; Ægisdóttir and Gerstein, in press), no effort has been made to construct a scale to compute attitudes following the mathematical formula depicted in those theories. Halgin et al's (1987) study may inspire future researchers to apply the formula of the TRA to the construction of a scale to measure psychological help-seeking attitudes. Finally, this measure has a methodological strength in that its items were generated from a pilot study with a large number of college students. Instead of adapting items from an old measure (e.g., ATSPPH), the developers generated all items from a current participant pool. This study may, therefore, encourage future researchers to develop a scale "from scratch" and generate items from a new item pool derived from a pilot study rather than recycling an old measure.

Summary

Social psychological theories of attitudes were reviewed for the purpose of incorporating in formation into the development of a scale to measure psychological help-seeking attitudes. Fischbein (1963) explained cognitive process through which an individual forms an attitude. According to the MMA (Fishbein, 1963), an individual's attitudes toward a certain object (A_O) could be represented by multiplying the strength of beliefs (*b*) about attributes associated with the object and an evaluation (*e*) of the attributes.

In 1975, Fishbein and Ajzen (1975) revised and expanded the MMA into the TRA (TRA). In contrast to the MMA, the TRA focuses on attitudes toward performing a behavior concerning an object (A_B) rather than attitudes toward an object itself (A_O). Moreover, a second component, social norms (*SN*), was added in the TRA in order to improve the prediction of behavioral intention. This component is computed by

multiplying normative beliefs (*NB*) by motivation to comply (*MC*).

The present author believes that including the concept of social norms is relevant in measuring attitudes toward counseling because previous research has revealed that social stigma is an important factor in psychological help-seeking attitudes (Fischer & Turner, 1970; Kushner & Sher, 1989; Pipes et al, 1985). When constructing a scale, however, the present author proposes to use the format of the MMA. Instead of measuring an additional component (i.e., *SN*), the present author aims at measuring only the attitude component (A_B) but including both subjective and normative items. This modification is based on the critique that the *SN* component may not have a significant main effect on behavioral intention and may have high correlations with A_B, the attitude component (Donald & Cooper, 2001; Miniard & Cohen, 1981; Shepherd & O'Keefe, 1984; Warshaw et al., 1985). Further, the present author believes that the format of the *SN* items ("*X* thinks I should") may be insufficient to measure various aspects of subjective norms. Therefore, the current study focuses on measuring attitudes of seeking counseling, excluding the *SN* component. To increase prediction of behavioral intention, however, the attitude component was designed to measure both subjective and normative aspects of the beliefs about seeking counseling. In other words, some of the belief items measure only an individual's own thoughts about seeking counseling while other items incorporate the person's anticipated reactions from other people toward his or her choice to seek counseling.

Current instruments measuring help-seeking attitudes were reviewed with the following three major aims involving the early stage of scale development kept in mind (Clark & Watson, 1995): (a) to clarify the target construct; (b) to indicate shortcomings of

existing scales; and (c) to assess whether or not a new scale is actually needed. The ATSPPH, the ATSPPH-SF, the TACS, the TAPS, the BAPS and the IASMHS were reviewed with a focus on their strengths and limitations in their methodology, psychometric properties, and usefulness. For instance, it was discussed that the ATSPPH and the ATSPPH-SF have limitations in their content and construct validity (Dadfar & Friedlaner, 1982; Fischer & Turner, 1970; Fischer & Farina, 1995; Mackenzie, 2004; Ægisdóttir & Gerstein, in press).

In addition, the present author believes that the TACS and the TAPS have weaknesses in their scale development methodology and usefulness when predicting help-seeking behavior. Further, most of the measures reviewed lacked a theoretical foundation in the social psychology literature on attitudes. Since attitudes and beliefs are social psychological concepts (DeVellis, 1991; Eagly & Chiken, 1993), it is always beneficial to consider relevant social science theories when developing a scale of help-seeking attitudes. The BAPS and the IASMHS are examples of the application of social psychological theories of attitudes when creating a measure of psychological help-seeking attitudes. The BAPS adopted the conceptual model of the TRA and the IASMHS was developed using the TPB. Still, while these theories served as conceptual frameworks for these instruments, the detailed formulas were not incorporated in the measures.

Halgin et al. (1987) exemplified the application of the TRA formula to construction of a scale for measuring psychological help-seeking attitudes. They constructed belief and evaluation scales in which responses to corresponding items are multiplied and summed to form attitudes scores. Their instrument was designed to

measure the attitude component only, excluding the social norm component of the TRA. The reliability and validity of their instrument was not sufficiently tested because the researchers were not attempting to develop a scale.

In summary, the present study sought to develop a scale called the BEACS (Beliefs and Evaluations about Counseling Scale), designed to measure attitudes toward counseling. This scale will have a strong theoretical foundation in the social psychological literature on attitudes. The present author used similar methods to those employed in Halgin et al's (1987) study. However, the belief and evaluation scales linked with the BEACS will include both subjective and normative components, in contrast to Halgin et al (1987) who measured only the subjective component. Reliability and validity for the BEACS will be tested through various statistical methods including item analyses, exploratory and confirmatory factor analyses, *t*-tests, correlation analysis, and MANOVA.

Specific Aims

The specific aims for the current research are as follows: (1) to develop a scale (BEACS) to measure both subjective and normative attitudes toward counseling; (2) to examine the factor structure of the BEACS; (3) to examine the internal consistency reliability of the BEACS; (4) to examine the convergent validity of the BEACS; and (5) to examine the predictive validity of the BEACS. These aims will be accomplished through a series of three studies: (1) item generation and scale construction, (2) item analysis and exploratory factor analysis, and (3) confirmatory factor analysis and additional tests of validity.

CHAPTER III

STUDY 1

The following pilot study was meant to identify college students' salient beliefs and referents when seeking professional psychological services. Pre-approval to conduct this study was received from the Internal Review Board (IRB) at the Office of Academic Research and Sponsored Programs at a Midwestern university.

Method

Participants

Participants for the pilot study were 43 undergraduate students taking courses in counseling at a Midwestern university. Participants were recruited from the research pool of the Department of Counseling Psychology and Guidance Services (CPSY). Participation in the study was offered as one of two voluntary tasks (e.g., an article review) to earn research credit for their courses. An effort was made to acquire an equal number of men and women, resulting in 22 men and 21 women participants. An attempt was also made to obtain equal numbers of freshmen, sophomores, juniors, and seniors, but higher class levels were overrepresented (junior $n = 14$, senior $n = 15$) compared to the lower class levels (freshman $n = 8$, sophomore $n = 6$). The mean age of the sample was 20.84 years old ($SD = 1.84$). Seventy percent ($n = 30$) of the participants were Caucasian. Thirty five percent ($n = 15$) of the participants reported past use of psychological services, while 65% ($n = 28$) indicated that they had never used the services. The ratio of the service usage experience was consistent in both genders. The

responses from each gender, however, differed in experience having thought about using the services. Only 14 percent (n = 2) of the male non-users indicated that they had thought about seeking psychological services, while half (n = 7) of the female nonusers reported having thought about using the services. Table 1 shows the frequency distribution of the sample's demographics.

Instrument

Questions for the pilot study were generated by the researcher to explore main components of the TRA: *subjective beliefs* and *social norms* associated with seeking counseling. The questions were designed to be inclusive and minimally directive in order to generate the least restricted responses. Thirteen open-ended questions were generated and reviewed by two counseling psychologists and one social psychologist. These individuals were instructed to evaluate the relevance of the questions to the attitude domain, to identify if the questions reflected subjective beliefs and social norms, and to recommend grammatical changes. This procedure resulted in some grammatical and syntactical changes, but no conceptual changes were made.

The questions were reformatted and grouped into five parts preceded by written instructions for respondents to imagine that they had experienced a psychological problem for a long time. Part 1 of the five-part measure explored participant's general willingness to seek psychological services ("Would you go to get professional psychological help?" "Why or why not?"). Part 2 had three questions to elicit perceived costs and benefits of seeking psychological services ("What benefit do you expect from seeking psychological services?" "What would prevent you from seeking psychological services?" "List any other positive and/or negative aspects for you that are related to your

Table 1

Demographic Information

	Study 1 (*n* = 43)		Study 2 (*n* = 497)		Study 3 (*n* = 283)	
	n	%	*n*	%	*N*	%
Sex						
Men	22	53	144	29	87	31
Women	21	47	353	71	196	70
Nationality						
U.S.	43	100	473	95	270	95
International	0	0	24	5	12	4
Ethnicity						
African/Black	12	28	18	4	5	2
Asian/Pacific islander	0	0	21	4	9	3
Caucasian/White	30	70	439	88	258	91
Hispanic/Latino	0	0	6	1	8	3
Native American	0	0	3	1	0	0
Other	1	2	10	2	0	0
Year in School						
Freshman	8	19	139	28	76	27
Sophomore	6	14	96	19	47	17
Junior	14	33	78	16	67	24
Senior	15	35	90	18	52	19
Graduate	0		94	19	41	14
Experience using psychological services						
Yes	15	35	183	37	91	32
No	28	65	314	63	192	68
Thought about using psychological services						
Yes	22	53	271	55	167	59
No	21	47	226	46	116	41

Note. Percentages indicate proportions of participants responding to the question.

seeking psychological services"). Part 3 asked participants to anticipate reactions from other people toward the participant's seeking of psychological services ("What might be concerned about you seeking psychological services? Why do you think this person would be concerned?" "Who might suggest that you seek psychological services? Why might this person(s) suggest that you seek psychological services?" "When you consider seeking psychological services, are you concerned about how other might perceive you? If so, what people? How would such persons react to you seeking psychological services?"). Finally, for Part 4 and 5, respondents were required to describe perceptions regarding psychological services which they had heard or seen from others ("Please describe any images, perceptions, thoughts or expectations you have about psychological services," "What have you heard about psychological services from the media or other people?"). The entire questionnaire can be found in Appendix C.

Data Collection

Training of research assistants for data collection

Two undergraduate students were recruited as research assistants. Duties for these undergraduate assistants included a review of the survey questionnaire, data collection, and data entry. The assistants were recruited from the CPSY department research pool. Both assistants were women majoring in elementary education. One of the assistants was a 21 year old, Caucasian student in her senior year. The other was a 20 year old, African American student in her junior year. These two students assisted on a voluntary basis to gain research experience for their resume as well as to earn research credit for a course. Both assistants chose this option over an alternative task (e.g., participating in research as a subject).

The researcher trained both undergraduate assistants. The initial phase of training was one hour in duration. During this time, the two assistants were introduced to the purposes of the current study and the basic concepts of the MMA and the TRA. Each assistant was also provided with the survey questionnaire for review. They were instructed to suggest changes in content and formatting which might better address an undergraduate student's perspective. They both agreed that the questionnaire was clearly formatted, easy to understand, and relevant to reflect students' perceptions about psychological services.

The second part of the training for the assistants focused on teaching them how to collect and store data. At this time, the assistants also shadowed the researcher conducting a survey in a classroom. After shadowing two survey sessions, the assistants administered the subsequent surveys by themselves without supervision from the researcher.

Procedure for data collection

In each administration session, a survey questionnaire, an informed consent form, and a demographic sheet were given to all participants in an random order. The demographics sheet included questions about respondent's age, sex, year in school, prior counseling experience, and willingness to seek counseling. Each administration session included groups of 5 to 10 student participants. On average, the survey required 30 minutes for completion. Following data collection, the research assistants typed all written responses into document files in order to perform content analysis.

Data Analysis

Training of research assistants for data analysis

Two different research assistants were recruited for the data analysis phase of this project. Both assistants were female and in their 3rd year of doctoral study in Counseling Psychology. One assistant was a 34 year old, Asian international student, and the other was a 29 year old, Caucasian American student. Each participated voluntarily to obtain research experience. They completed the Human Participants Protection Education for Research Teams online course and test, sponsored by the National Institute of Health (NIH).

The researcher and the two above-mentioned raters participated in one hour of training. In this session, the two raters were introduced to the MMA, the TRA, and the modified model proposed by the researcher. Following this conceptual introduction, the raters were trained to analyze the content of the participants' responses to identify *subjective attributes*, *normative attributes*, and *referents*. They were instructed to categorize a response which contained only a participant's own thoughts and feelings as *subjective attributes*. Such statements as "counseling eases stress" and "counseling is expensive" were provided as examples for this category. In contrast, the raters were trained to label a response addressing any concern about other people as *normative attributes*. Examples of a *normative attributes* response included "my friends will think I am crazy if I seek counseling," "my parents will be worried too much," and "my girlfriend would feel guilt thinking that she did something wrong." Finally, the raters learned that *referents* simply stand for the subjects of the normative attributes such as "friends," "parents," and "girlfriend."

The raters were given a chance to practice with sample responses to make sure that they understood their task correctly. Two of the 43 transcripts generated from the participants' responses were used for the practice session. The three raters categorized most of the sample statements consistently. Still, several responses concerning impersonal referents produced variable ratings within the research team. Examples of these responses were "Private information will be released to *public*" or "Negative *social* images about counseling." The three raters agreed to postpone any judgment on these statements and made a temporary category named *other* for any responses that did not appear to fit within either the subjective or normative categories. These responses were left unchanged at this time and deletion or inclusion was determined at a later point in the project.

Procedure for data analysis

After training and practice, the 43 transcripts generated from the participants' responses were randomly assigned to the two doctoral assistants. Each of the two assistants reviewed and thematically grouped the 21 or 22 responses assigned to her. Independent from the two assistants, the researcher reviewed all 43 transcripts. If an assistant and the researcher disagreed on a response, the other assistant joined the discussion until a decision was reached to retain the response in either the subjective or the normative category or to delete the response.

Results

Initial Generation

As a result of the theme analysis, 62 initial themes for seeking psychological services emerged. These themes appeared to be grouped into three categories including

outcomes of psychological services, service providers' traits, and *anticipated reactions from other people*. Since the traits of service providers are important factors that determine the quality of the services provided (Beutler et al., 2004; Hong, 1999), the three raters believed that both the first and second categories reflected *subjective attributes* of seeking psychological services, while the third category corresponded to *normative attributes*.

The themes for the first, second, and third categories are listed in Table 2, 3, and 4, respectively. The first column indicates numeric codes for the themes, and the second column lists the label for each theme that was agreed upon by the three raters. The third column shows examples of the coded responses along with the corresponding theme. All responses were coded by two raters (the researcher and one doctoral assistant) working independently, formulating a frequency distribution of responses for each theme. The fourth column illustrates the total number of responses coded with a specific theme by either of the two raters. The fifth column indicates the percentage of responses coded identically by the two raters. For instance, a total of 42 responses were coded as *Help/ Solution/ Get Over* by at least one rater, and 19 out of the 42 responses (45 %) were coded as part of this theme by both of the raters (See *No 1* in Table 2).

As illustrated in Table 2, the first category, outcomes of seeking psychological services, were grouped again into sub-categories including Positive Outcomes or Negative Outcomes. Positive Outcomes reflected advantages of seeking psychological services such as the resolution of a presenting problem, venting, receiving advice, and learning skills (*No 1* through *18* in Table 2). Negative Outcomes were disadvantages of seeking psychological services such as high cost, discomfort, perceptions that

Table 2

Subjective Attributes 1 (Outcomes)

No.	Themes	Response examples	*f*[a]	%[b]
		Positive Outcomes		
1	Help/ Solution/ Get over	Making myself get over the problem; Getting the problem fixed; Problem will be resolved;	42	45
2	Talk to someone/ Vent	Vent to someone; Open ear to talk to; Empty my mind in confidentiality; Talking helps	22	59*
3	Get to understand/ Awareness	Explanation for a problem; Understand my problem; Clearer understanding	18	50
4	Advice/ Information/ Guidance	Get information on possible solutions; Make suggestions; Figure out how to overcome; Give good and proper advice	15	53
5	Improve	Help me become better and healthier; Allow myself to lead a more productive life	11	45
6	Reduce symptoms	Ease depression, and the thing that is bothering you, stress, etc.; Reduce stress and worry	11	25*
7	Comfort/ Support	Comfort; Encouragement; Emotional support	10	50
8	Hope/relief	Hope; Peace of mind	9	11*
9	Learn skills	Learn how to interact with people; Learn new behaviors and/or coping skills	6	67
10	New perspectives	Open my eyes to a different side of things; Outside objective perspective	5	60
11	Get more confidence	Feeling confident I can manage my time better; Feel more competent in the things I participate in	4	75
12	Goal setting	Breakdown of goals that I can work on that will take constant strain off me	2**	100
13	Prevention	Give me tips to prevent feeling depressed	2**	50
14	Pride	Proud of themselves for having the courage	2**	50
15	New experience	New experience	1**	100
16	Cognitive change	Learn how to think better	1**	100
17	Confidential	Empty my mind in confidentiality	1**	100
18	Better attitudes	Better attitudes toward people and life	1**	100

		Negative Outcomes		
19	High cost/ overpriced	It is a rip off; Over priced; High prices; Don't know how much the cost is;	25	88
20	Label/ Stigma	Labeled as crazy; Social stigma	19	63
21	No need/ Only for severe cases	Only for people with severe problems; I feel that I don't need any help; I have everything under control	18	70
22	Do not help/ Useless	Nothing more than a friend could do; I can just turn to God; I would just talk to my mom about things instead of paying someone; No effect; Not worth the money; Problem would not be resolved; I don't think strangers would be able to help	17	65
23	Discomfort	Feeling awkward and embarrassed; Embarrassed or nervous to talk about my problems; Fear of revealing what I am ashamed of	12	50
24	Unknown/ Unpopular service	Have not heard much; Don't know where to find one; Not knowing where to go or how to go about it	6	75
25	Time	Longtime treatment; Strict time schedule; Busy schedule	6	100
26	Avoidance of change	A desire to maintain some status; My own unwillingness to change	5	40
27	Harmful effect	Some can be hurtful	4	25*
28	Confidentiality/ Privacy concern	Judgment of someone seeing me in the facility or walking out of it; Not being confidential	2**	100
29	Guilt	I would feel guilt and shame because I couldn't resolve the problem on mind	1**	100
30	Become dependent	Could become too dependent on my counselor	1**	100
		Ambivalent Outcomes		
31	Freudian style	A leather chair, some old guy that wants you to tell about your first bad experience; Lying down on a long sofa telling the psychologist my problem; Conservatively dressed white middle aged man	9	67
32	Medication	Get some drugs to make me feel better; Quick to giving people drugs	5	80

[a] Response frequency; [b] Inter-rater consistency.

* Inter-rater consistency lower than 30 %; ** Response frequency lower than 4.

psychological services are ineffective or time-consuming, etc. (*No 19* through *30*). Two themes, *Freudian style* (*No 31*) and *prescribing medication* (*No 32*) did not appear to reflect either advantages or disadvantages since they could be viewed as either positive or negative. These themes constituted the third sub-category, Ambivalent Outcomes.

Table 3 illustrates respondents' perceptions of positive and negative traits of psychological service providers. Five positive (*No 33* through *37*) and eight negative (*No 38* through *45*) traits were identified. As Table 3 shows, some negative traits were identified as opposites of their corresponding positive traits. For instance, *No 33* (Skilled) was countered with *No 39* (Unskilled/Impractical), as was *No 35* (Care) with *No 40* (Do not care). Finally, Table 4 presents anticipated reactions of other people to the respondents' seeking of psychological services. Five positive (*No 46* through *50*) and twelve negative (*No 51* through *62*) reactions were identified.

As indicated with asterisks in the fifth column in Tables 2 and 4, some themes in the Outcome (Table 2) and Reaction (Table 4) categories had very low inter-rater consistency (lower than 30 %), while the Traits category (Table 3) revealed a high inter-rater consistency in general. Among the Outcome category, themes *6* (Reduce symptoms), *8* (Hope/Relief), and *27* (Harmful effect) were coded in a significantly different fashion by each rater. In addition, many themes in the Reaction category (Table 4) were highly inconsistent among the raters since four (*No 47, 48, 49* & *50*) out of 5 positive themes and five (*No 52, 54, 55, 59* & *62*) out of 12 negative themes had an inter-rater consistency lower than 30%. Although a clear guideline for an acceptable inter-rater consistency for this type of qualitative study could not be found in the literature, all three raters in the present study agreed that those themes with an inter-rater consistency lower than 30%

Table 3

Subjective Attributes 2 (Traits)

No.	Themes	Response examples	*f*[a]	%[b]
		Positive Traits		
33	Skilled	Speak quite well; Skilled to get you to talk; Good listening skills	18	33
34	Professional	Highly educated; Educated professional; dress suit	10	50
35	Care	Willing to help people; Caring	8	38
36	Open-minded	Easy to talk to; open to their patients	5	40
37	Unbiased/ nonjudgmental	I feel like I can vent to someone that doesn't have my total background and who will be unbiased; Wouldn't judge me	2**	100
		Negative Traits		
38	Money hungry	Only interested in the cash; They are just money hungry and do not actually do anything; Just want to take your money; Greedy; Over paid	9	78
39	Unskilled/ Impractical	Nerdy, book-smart, not practical; They don't know what they are talking about	6	33
40	Do not care	Not at all concerned about my well fair; Doesn't seem empathetic to my own problem	5	83
41	Unfavorable	The counselor might not be someone I would want to talk to; Might be difficult to find one that suits me among many different types of therapy	3**	67
42	Faking/ Insincerity	Making people think they are helping; Psychologists are fake and require clients to be a little fake; Act like they understand	3**	33
43	Have their own issues	Most of them have unresolved issues of their own; They only help other people because they cannot deal with their own problems	2**	100
44	Manipulate	They try to manipulate you	2**	50
45	Nosy	Just want to know about your life history, not fix your problem	1**	100

[a] Response frequency; [b] Inter-rater consistency.

* Inter-rater consistency lower than 30 %; ** Response frequency lower than 4.

Table 4

Normative Attributes

No.	Themes	Response examples	*f*[a]	%[b]
		Positive Reactions		
46	Supportive	Mother and father would be supportive; My family and friends would support me	26	31
47	Persuade	My close family members would encourage me to go see a psychologist if something was wrong with me	13	8*
48	Caring	My family loves me and has my best interests	9	0*
49	Positive experience	My father has gone through depression and thinks you should get help when you need it	8	0*
50	Hopeful	My friends might think that I could get better state of mind by seeking help	3**	0*
		Negative Reactions		
51	Judge	They would think I am crazy; Think any less of me; My boss would see it as a defect of some excuse; My dad would think that I am weak and helpless	33	58
52	Generally negative	Girlfriend would have a negative attitude towards me; A negative connotation	13	15*
53	Worry/ Concern	I think telling them that I thought I need professional help would worry my parents	12	42
54	Skeptical	They don't believe in it; My boyfriend doesn't believe talking is the way to solve a problem	12	17*
55	No need	My mother feels that it is not necessary; They would think that you should be able to work things out on your own and with God's help	7	29*
56	Insult	They might joke about it; My guy friends would just joke and probably make fun of me	6	67
57	Relationship change	Girlfriend or friends might feel it could affect our relationship; They might feel driven away from me	6	33
58	Guilt	My family would wonder what they did or what they didn't do for me; Lover might blame themselves	5	40
59	Dissuade	They will convince me not to do it	5	0*
60	Liability	My boss would see it as a liability; Put the career field in a bad situation	3**	67
61	Panic	Wife will panic	3**	67
62	Deny	Wouldn't want to accept that there are something wrong with me	1**	0*

[a] Response frequency; [b] Inter-rater consistency.

* Inter-rater consistency lower than 30 %; ** Response frequency lower than 4.

were ambiguously defined and should be discarded or combined with other themes instead of remaining as separate categories.

Besides inter-rater consistency, response frequencies were also examined to determine highly salient attributes to be used in the construction of the desired scale. While a single-asterisk in the fifth column indicates low inter-rater consistency, a double-asterisk in the fourth column indicates the themes with response rates as low as three or less. Again, although an acceptable frequency may be a topic of discussion among researchers, the three raters agreed that any frequency less than four was probably too low to be of interest. Therefore, based on these criteria, themes were discarded or combined with other themes that had similar meanings. This procedure resulted in the final 55 themes for construction of a new scale comprised of 41 subjective attributes and 14 normative attributes.

Table 5 presents the final 55 themes. The table divides the 55 items into six categories (columns), each of which has two or four dimensions (rows). First, subjective attributes were divided into two subcategories including service outcomes and service providers' traits. Normative attributes represents a single category regarding the reactions of others. Each of the three categories including outcomes, traits, and reactions were divided a second time into positive and negative themes (see the second row of Table 5).

Themes were also grouped by their thematic similarities (see the third, fifth, seventh, and ninth rows of Table 5). For instance, Outcome themes were grouped into one of four subcategories including Practical, Emotional, Cognitive, and Other Outcomes. Practical Outcomes reflected tangible effect of psychological services such as symptom reduction or improvement of daily functioning (e.g. "symptom reduction"). Cognitive

Table 5

Final Themes for Construction of a New Scale

Subjective Attributes				Normative Attributes	
Positive Outcome	Negative Outcome	Positive Traits	Negative Traits	Positive Reaction	Negative Reaction
Practical Outcome		Professional Traits		Active Reaction	
Effective	Ineffective	Skilled	Unskilled	Hopeful	Judge
Improve	No need	Professional	Impractical	Encourage	Insult
Symptom-reduction	Sever cases only	Confidential	Non-confidential	Support	Liability
Prevention					Panic
					Dissuade
					Relationship Change
Emotional Outcome		Personal Traits		Passive Reaction	
Vent	Discomfort	Care	Do not care	Not mind	Skeptical
Comfort	Forced to change	Open-minded	Money hungry		No need
Support	Dependent	Unbiased	Manipulate		Worry
Encourage		Non-judgmental	Insincerity		Guilt
Hope/Relief			Have their own issues		
Confident					
Cognitive Outcome					
Awareness					
Insight					
Advice					
Information					
Guidance					
Learn skills					

Outcomes and Emotional Outcomes referred to the impact of counseling on a person's thoughts (e.g. "awareness") and feelings ("comfort"). Four themes including "time consuming," "high cost," "Freudian style" and "prescription of medicine" constituted Other Outcomes as they did not fit well within the other three categories. Similarly, Trait themes were divided into two subcategories—Professional and Personal traits. Professional traits represented qualities closely related to expertness and a professional's credentials. These included perceptions of professionals as skilled or likely to maintain confidentiality. Personal traits referred to a professional's innate qualities as a human being such as caring and open-minded. Finally, normative attributes were divided into active and passive reactions. Active reactions reflected the professional's actions or reactions which were directed toward the respondents. These included statements which were perceived by the respondents as encouraging or insulting. Themes like "not minding" or "worrying" constituted passive reactions as they seemed to have an indirect impact on the respondents.

It should be noted that the categorization outlined above was done thoughtfully yet arbitrarily for the purpose of generating items from various themes. The underlying latent variables of the new scale were explored later through factor analyses. The statistical analyses and results connected to this scale are reported in the following chapters.

For the final procedure of the item generation, frequently addressed referents were identified. Table 6 lists those individuals who the respondents identified as important referents when they consider seeking psychological services. Numbers in parentheses represent the frequency of the responses. The list reflects the respondents' terms as they

were given. For instance, although the terms "mother" and "father" can be combined together into an inclusive term, "parent," all three terms (mother, father, and parent) were listed and counted separately in Table 6 to reflect the respondents' actual responses. Still, several terms were counted together into a single category. For instance, responses such as "my entire family," "some family members," "female family members," and "relatives" were grouped together into the representative term, "family." Likewise, the term "outsiders" in Table 5 included several different responses such as "other people," "others," "other students," "outsiders," and "people who don't know me well." Finally, responses such as "someone who has sought out help," "someone who majored in psychology," "someone who thinks I can't handle whatever I am going through," and "someone who knows me well" were counted together as "someone."

The purpose of this procedure was to generate a list of referents to include in the new scale. The challenge of this task was to state the scale questions in such a way as to encourage respondents to imagine the reactions of actual people with whom they have close relationships. The final list of the referents for the new scale can be found in Table 7. All responses derived from Table 6 were included in the final list of the referents though some gender-specific terminology was changed into gender-neutral terms. For instance, mother and father were not combined into a gender-neutral term, parent, but remained as two separate terms. This was done to accommodate respondents whose mother and father may exhibit inconsistent reactions toward a respondent's choice to seek psychological services. In contrast, girlfriend and boyfriend were combined into a gender-neutral term, partner. This was done because respondents rarely have both a girlfriend and a boyfriend at the same time, thus two separate options on the checklist may not be necessary.

Table 6

Social Norm Referents

Questions[a]	Responses (*f*)		
3.1. Who might be concerned about you seeking psychological services?	Mother (4) Father (4) Parents (3) Family (4)	Wife (1) Husband (1) Girlfriend (5) Boyfriend (1)	Friends (11) Boss (1) Outsiders (2) None (14)
3.2. Who might suggest that you seek psychological services?	Mother (10) Father (6) Parents (12) Family (10) Sibling (2) Wife (1) Husband (1) Children (1) Step mother (1)	Girlfriend (3) Boyfriend (1) Friends (8) Best friends (1) Close friends (1) Lover (1) Anyone who cares about me (1)	Boss (1) Professors (1) Teachers (1) Academic advisor (1) Coaches (1) Pastor (1) Someone (4)
3.3. When you consider seeking psychological services, are you concerned about how other might perceive you? If so, what people?	Mother (2) Father (3) Parents (4) Family (4)	Girlfriend (4) Boyfriend (3) Friends (14) Lover (4)	Outsiders (5) None (19)

[a] See Appendix C.

Scale Construction

A review of the responses from the 43 undergraduate students resulted in the selection of 55 themes that represented the following content area: outcomes of psychological services, service providers' traits, and anticipated reactions of other people. The researcher generated one to three items per each theme. As a result of this process, 92 items were generated. Fifty of the 92 statements referred to outcomes of psychological services, 20 pertained to characteristics of service providers, and 22 tapped the anticipated reactions of other people to the respondent's choice to seek psychological help.

In structuring sentences, the present author acknowledged a need for unifying terms for psychological service providers. The author noticed that the respondents in this pilot study used different terms (e.g., psychologists, counselors, and therapists) interchangeably. Among these three terms, the author selected the more generic term, counselor, to include various professionals (psychologists, counselors, social workers etc.) who provide psychological services.

Following this procedure, all items were presented to a panel of three psychologists for expert review. The panel reviewed the 92 items and evaluated whether items reflected subjective or normative beliefs about seeking counseling, they made grammatical changes, and they eliminated redundant items. For instance, three sentences were derived from the theme Improvement: "I will become a healthier person," "I will be able to lead a more productive life," and "I will have a better state of mind." As a result of the expert review, the first sentence was deleted because "become a healthier person" appeared to be a variation of "more productive life" and/or "better state of mind." In

addition, the meaning of the word "healthier" was found to be ambiguous as respondents could understand it to refer to physical health. Thus, the other two statements were selected since they appeared to be more specific. The three psychologists concluded that, though these two statements appeared similar to each other, they measured different attributes of counseling as "more productive life" refers to a behavioral outcome, while "better state of mind" reflects an emotional outcome. Thus, both statements were included in the new scale. The experts also agreed to include many items in the initial item pool and postpone reducing the number of items through statistical analyses until a later point in the project (DeVellis, 1991).

Another result of the expert review was simplification of multifaceted statements. For instance, a normative statement, "(most people I know would) think I should be able to work things out on my own or by relying on my religion" was judged to be multifaceted. Therefore, two separate statements were generated which measured "working things out on my own" and "relying on my religion."

Finally, the experts examined the ratio of positive and negative statements. It was judged that the subjective attribute items were well balanced between positive and negative statements (23 positive, 20 negative, and 2 ambivalent statements). However, among the normative attribute items, positive items were underrepresented (4 positive and 12 negative statements). Thus, three items were randomly selected among the negative statements ("be driven away from me," "worry so much," and "look down on me") and transitioned into positive statements by adding a reversing adverb, *not* ("not be driven away from me," "not worry so much," and "not look down on me").

As a result of the expert evaluation, a total of 61 items were selected for

construction of the new scale (Table 7). Each of these 61 belief items were linked with a rating for the likelihood of occurrence of a particular outcome regarding seeking help. Ratings were established as a 6-point Likert-type scale scored from *extremely unlikely* (0) to *extremely likely* (5). The number of rating options was based on a large body of research that has recommended at least five points for a rating scale for better reliability and validity (Krosnick & Fabrigar, 1997; Oaster, 1989; Rasmussen, 1989). It was also decided not to include a neutral point in the rating scale to encourage respondents to make a decisive statement about their beliefs (Weems & Onwuegbuzie, 2001). Finally, it was decided to code the rating options from zero (0) to five (5) rather than 1 through 6 to accurately reflect the mathematical meaning of a probability that always ranges from 0 to 1 (or 0 % to 100 %).

Following this procedure to develop the belief scale, the next step was to form an evaluation scale. Each of the 61 beliefs (45 subjective and 16 normative beliefs) about seeking psychological services listed in Table 6 was used to form a corresponding evaluation item. For example, a belief item, "I would learn new behaviors and skills" was used to form an evaluation item "Learning new behaviors and skills is…" The outcome evaluation items were linked with a 7-point bipolar rating from *very unfavorable* (-3) to *very favorable* (+3). According to the TRA, when measuring evaluation items, a bipolar rating scale is more favorable than a Likert type, unipolar rating scale because the former reflects perceived profit (+) and loss (-) of the outcomes. A neutral point was included to reflect a mathematical meaning of the zero point (0) on the bipolar scale.

Table 7

The Initial Belief Items for the BEACS

"If I went to see a counselor…"
sb1. I would learn new behaviors and skills.
sb2. I would be able to understand my problems.
sb3. I would be able to lead a more productive life.
sb4. I would be given medicine.
sb5. I would be forced to express my feelings.
sb6. I would be emotionally supported by the counselor.
sb7. it would cost me a lot of money.
sb8. I would have to confront my problems.
sb9. I would have a better state of mind.
sb10. counseling would give me a feeling of relief.
sb11. it would cost me a lot of time and energy.
sb12. I would have to change the ways that are familiar to me.
sb13. I would have to reveal thoughts and experiences of which I am ashamed.
sb14. counseling would help me cope with the problems that effect my life.
sb15. I would get an outside, objective perspective.
sb16. I would gain more confidence that I can manage things in my life.
sb17. I would get a feeling of comfort.
sb18. it would open my eyes to different sides of things.
sb19. it would prevent my problem from getting worse.
sb20. I would become too dependent on my counselor.
sb21. counseling would make me nervous.
sb22. I would have someone to talk to about my problems and concerns.
sb23. counseling would make me embarrassed.
sb24. I would be encouraged by the counselor.
sb25. I would have to dig up painful memories that I have been trying to forget.
sb26. the counseling process would be Freudian-style (e.g., working with a conservatively dressed counselor, lying down on a couch with my eyes closed, and talking about my early life experiences).
sb27. I would get useful information and advice.
sb28. I would not be understood by the counselor.
sb29. I would have to talk about my personal history to a stranger.
sb30. it would not bring any solution to my problem.
sb31. my counselor would have good listening skills.
sb32. my counselor's personality would not match well with mine.
sb33. my counselor would be intelligent.
sb34. my counselor would be biased.
sb35. my counselor would be well trained and have the skills to help people.
sb36. my counselor would be professional.

sb37. my counselor would have his or her own issues that he or she could not deal with.
sb38. my counselor would not actually do anything.
sb39. my counselor would try to manipulate me.
sb40. my counselor would be caring.
sb41. my counselor would be judgmental.
sb42. my counselor would be open-minded.
sb43. my counselor would only be interested in my money, but not concerned about my welfare.
sb44. my counselor would keep my secrets.
sb45. my counselor would be highly educated.

From the following list, indicate 3-5 people who you would consider as the most important to you in making a decision to seek or not seek psychological services.

__ Father
__ Mother
__ Brother
__ Sister
__ Spouse (husband/ wife)
__ Partner (fiancé or boy/girlfriend)
__ Children (daughter/ son)
__ Other relatives
__ Best friend (very close friend)
__ Friends (peers or classmates)
__ Teacher (professor or academic advisor)
__ Coach
__ Religious leader
__ Boss
__ Acquaintances
__ Other (Specify:_____)

"If I went to see a counselor, most of these people would…"

nb1. not mind.
nb2. become hopeful thinking that counseling would help.
nb3. think I am a weak person who cannot work things out on my own.
nb4. feel guilty thinking that they did something wrong to me.
nb5. think I should have gone to them for help instead.
nb6. not be driven away from me
nb7. be supportive of my decision.
nb8. not worry so much.
nb9. think there was something seriously wrong with me.
nb10. be scared by the fact I am seeing a counselor.
nb11. be proud of me as I sought out a way of helping myself out.
nb12. not look down on me.
nb13. think I should have relied on my religion instead
nb14. be happy for me as I am getting helped.
nb15. think I am crazy.
nb16. make fun of me.

Summary

Study 1 showed the procedures involved in construction of the BEACS. Study 1 was a qualitative study conducted with 43 undergraduate students. Through a review of participant responses, three categories of themes emerged: counseling outcomes, counselor traits, and reactions of others. Counseling outcomes and counselor traits seemed to be the subjective attributes according to the TRA, while reactions of others seemed to be the normative attribute. Including both subjective and normative attributes, a total of 61 items (45 subjective and 16 normative items) were derived as a result of the qualitative study for item generation. Each of the 61 items was used to form a pair of related items, a probability belief item, and an outcome evaluation item.

The overall goal of the present study was to develop a psychometrically-sound, theory-driven scale measuring attitudes toward seeking counseling. The MMA (Fishbein, 1963) and the TRA (Fishbein & Ajzen, 1975, 1980) were applied in constructing the BEACS. As reported in the following Chapters, Studies 2 and 3 were conducted to provide the evidence to support the overall goal of the study by examining the construct validity, the internal consistency reliability, the convergent validity, and the known-group validity of the BEACS.

CHAPTER IV

STUDY 2

Study 2 involved tests of the internal consistency and exploration of the factor structure of the BEACS.

Method

Participants

A total of 403 undergraduate and 94 graduate students (353 women, 144 men) at two Midwestern universities participated in this study. Most data (n = 491) were collected from one school, while data from only six students were collected from the second university. There is a notable discrepancy between sample sizes from the two schools. This discrepancy is a product of limited resources for data collection at the second university which afforded access to only one class, while a larger sample was obtained from the first school where access was granted to the entire student body (see the following *Procedure* section for detailed information regarding data collection). The mean age of the respondents was 22.7 years (SD = 7.2). Participants were recruited from various courses in counseling, psychology, education, social studies, science, arts, health science, business, and liberal arts. Caucasian participants comprised 88% (n = 439) of the sample. Thirty seven percent (n = 183) of the participants reported past use of psychological services, while 63% (n = 314) indicated that they had never used the services. Table 1 shows the frequency distribution of the sample's demographics.

Procedure

Data were collected through INQSIT, an on-line survey tool. Using their own personal computers, participants individually accessed the designated website. The INQSIT survey display for this study incorporated documentation regarding informed consent, a demographic data form, and the BEACS. On average, the survey required approximately 30 minutes to complete.

At University 1, participants were recruited from diverse undergraduate and graduate courses through various methods. The first method of recruitment utilized a pre-established research pool in the Department of Counseling Psychology and Guidance Services (CPSY). Students voluntarily participated in the present study over an alternative task (e.g., an article review) to earn research credit for their courses offered in the department. These participants signed in to INQSIT with their university computer system usernames and passwords. This information was used strictly for authentication purposes and was not associated with the participant's identity or their responses.

A second method for recruitment incorporated an electronic advertisement which was sent to all students at the university through a mass-emailing service arranged by the Registrar's Office. The email advertisement described the purpose of the study, the confidential and voluntary nature of the study, the URL address of the survey website, a description of the incentive for participation, and contact information for the primary researcher (Appendix D). As an incentive for their participation, these participants received a chance to be randomly selected for a $40 gift certificate at a book store.

At University 2, participants were recruited through an instructor who agreed to inform students in his class about the project. The instructor did not agree to provide any

research credit to his students for participating in the present study. Instead, students who chose to participate were also given a chance to be randomly selected for the $40 incentive. A second module with the survey materials was created on the website for students from the second university. These students accessed the website using a nickname they created.

After completing the survey, participants from both universities were instructed to send an email to a graduate research assistant to confirm their research participation. Participants from the CPSY research pool were asked to provide their names, the course and section numbers they were enrolled in, and their instructors' names to receive research credits. All other participants were asked to provide their nicknames that they created to access the survey. The graduate research assistant was in charge of incentives only and had no access to the survey responses. He was a 32 year old, male, 2nd year masters-level student in the CPSY department. He volunteered to assist with the present study for his own research experience, and completed the Human Participants Protection Education for Research Teams online course and test.

Instruments

Demographic Sheet

Respondents were asked to indicate their age, sex, nationality, race or ethnicity, year in school, major field of study, prior counseling experience ("Have you ever sought counseling?") , and prior thoughts of seeking counseling ("Have you ever thought of seeking counseling?").

Beliefs and Evaluations about Counseling Scale (BEACS)

The BEACS is comprised of two, 61-item scales, one relegated to measure

beliefs and a second for evaluation. See Study 1 for the development of the 61-item BEACS.

Belief scale of the BEACS. Each item on the belief scale consisted of a rating for the likelihood of occurrence of a particular outcome of seeking counseling, such as "Seeking counseling would give me an objective opinion about my concerns." The belief items were scored on a 6-point Likert-type scale from *extremely unlikely* (0) to *extremely likely* (5). Among the 61 items on the belief scale, 45 items involve subjective beliefs (*sb*) about counseling outcomes or counselors' traits. The remaining 16 items are normative beliefs (*nb*), which refer to other people's reactions toward the respondent's choice to seek counseling. In the online survey, the *sb* questions were preempted by the following instruction: "Imagine you have been experiencing a psychological concern for a long time. The following statements describe some possible outcomes of your seeking counseling. Please rate the extent to which you expect each of the following statements to happen as a result of your seeking counseling." Respondents were then prompted by a leading phrase ("If I went to see a counselor…") before responding to the *sb* questions.

The *nb* questions were preceded by the instruction, "This section of the survey will ask you to consider how other individuals might perceive you if you sought counseling." Before responding to the *nb* questions, respondents were asked to select three to five people from a list of 16 referents (mother, professor, friend, etc). Participants were asked to select people who they would consider to be the most important in their decision to seek or not seek counseling (see Table 7). Next, participants were instructed to respond to the *nb* questions and were prompted by the following statement, "If I went to see a counselor, most of these people would…."

Evaluation scale of the BEACS. Each evaluation item on the BEACS corresponds to a belief item and represents a value judgment regarding the respondent's anticipated outcome. For example, the anticipated counseling outcome "objective opinion" formed a belief item, "Counseling would give me an objective opinion about my concerns," as well as an evaluation item, "Getting an objective opinion about my concerns is (good or bad)." The researcher referred to the evaluation items corresponding to *sb* as subjective evaluation (*se*), and those corresponding to *nb* as normative evaluation (*ne*). The outcome evaluation items consisted of a bipolar-type rating from *very unfavorable* (-3) to *very favorable* (3).

Scoring of the BEACS. Scores of corresponding belief items and evaluation items were multiplied, yielding 61 products (possible range = -15 to +15). Based on the TRA formula ($A = \sum_{i=1}^{n} b_i e_i$), the researcher referred to the multiplied products as *attitude items*. Although a series of these 61 attitude items were not a questionnaire but a collection of score products, the researcher referred to this collection as the "*attitude scale*" for convenience. The 61 items of the attitude scale included 45 subjective attitude items (*SA*) and 16 normative attitude (*NA*) items. An individual's total score on the BEACS was calculated by averaging the 61 attitude scores. Therefore, scores could range from -15 to +15 with higher scores reflecting more positive attitudes toward seeking counseling. An average of the scores was used instead of a sum as it served to simplify the data. Figure 1 illustrates the scoring system of the BEACS.

Belief Scale *Extremely unlikely (0)* to *Extremely likely (5)*		Evaluation Scale *Very unfavorable (-3)* to *Very favorable (3)*		Attitude Scale *(-15)* to *(15)*
sb1. I would learn new behaviors and skills.	X	se1. Learning new behaviors and skills is…	=	SA1
sb2. I would be able to understand my problems.	X	se2. Being able to understand my problems is…	=	SA2
:		:		:
sb45. My counselor would be highly educated.	X	se45. That my counselor is highly educated is…	=	SA45
nb1. (Most people I know would) not mind.	X	ne1. Not minding my seeking counseling is…	=	NA1
nb2. (Most people I know would) be hopeful thinking counseling help.	X	ne2. Becoming hopeful thinking that counseling help is…	=	NA2
:	X	:		:
nb16. (Most people I know would) make fun of me.		ne16. Making fun of me is…	=	NA16
				Total BEACS score

Figure 1. Scoring System of the BEACS

Data Analysis

Data for the item analysis and the exploratory factor analysis were analyzed using the SPSS 16.0 computer program. Factorial validity of the BEACS was obtained via an exploratory factor analysis using principal component factor extraction with the Varimax rotation. Principal component factoring (PCF) instead of principal axis factoring (PAF) was used because data reduction was the main purpose of the factor analysis in this beginning stage of the scale development. Several methods were utilized to select the number of retained factors: eigenvalues, the scree plot, percent of variance explained, and the number of items loading on a factor.

Exploratory factor analysis of the data set was conducted in two phases. The initial phase analyzed responses to the 61 items of the beliefs scale (see the first column of Figure 1). The purpose of this first phase was to select the most valid belief items and to explore latent variables underlying college student's belief systems associated with seeking psychological services. After selecting valid belief items, the second phase of analysis was conducted. This second phase consisted of a factor analysis of the attitude items (see the third column of Figure 1). The purpose of this second phase was to explore latent variables within the attitude item set—the underlying construct that the BEACS aims to measure.

For the item analyses, the internal consistency coefficient, the score distribution for each item, the correlation matrix, the item-total correlations, and the alpha (if an item was deleted) were all examined. Through this process, those items which impede internal consistency were considered for elimination from the measure.

Results Involving the Belief and Evaluation Scales

Item Analysis of the Belief and Evaluation Scales

Table 8 lists the means and standard deviations of the 61 pairs of the belief and evaluation items of the BEACS. As seen in the table, the mean belief item scores ranged from 1.06 (*SD* = .99) for item sb8, "I would have to confront my problems," to 4.26 (*SD* = .70) for item sb31, "My counselor would have good listening skills." Higher scores indicate that respondents believe the stated outcome is more likely to occur as a result of seeking counseling.

The standard deviations of the belief item scores ranged from .69 (*M* = 4.11) for item sb33, "My counselor would be intelligent," to 1.52 (*M* = 3.04) for item sb4, "I would be given medicine." A smaller standard deviation implies that there was a consensus about respondent's anticipated counseling outcomes or counselor qualities. Six items (sb31, sb33, sb35, sb40, sb42, & sb45) had the smallest standard deviations (*SD* < .80), implying that these items are not able to differentiate respondents who have more positive attitudes toward counseling from those who have more negative ones. Contents of these six items involved counselor's positive qualities such as having good listening skills (sb31), or being intelligent (sb33), well trained (sb35), caring (sb40), open-minded (sb42) and highly educated (sb45). This finding suggests that regardless of their attitudes toward counseling, respondents believed that counselors possess these positive qualities. In other words, counselors' positive qualities do not appear to significantly affect a person's attitudes toward counseling.

The mean evaluation item scores ranged from -2.59 (*SD* = .95) to 2.562 (*SD* = .79). The lowest score (-2.59) related to item se43, "being only interested in my money

Table 8

Means and Standard Deviations of the 61 Belief and Evaluation Items

	Belief Scale			Evaluation Scale	
	M	*SD*		*M*	*SD*
sb1	3.28	1.20	se1	1.68	1.08
sb2	3.83	.94	se2	2.19	.88
sb3	3.45	.99	se3	2.22	.90
sb4	3.04	1.52	se4	-1.10	1.60
sb5	1.97	1.43	se5	-.07	1.59
sb6	3.83	.97	se6	1.73	1.12
sb7	1.83	1.48	se7	-2.15	1.32
sb8	1.06	.99	se8	.69	1.42
sb9	3.56	.97	se9	2.02	.89
sb10	3.41	1.07	se10	2.09	.89
sb11	2.15	1.23	se11	-.96	1.30
sb12	2.16	1.14	se12	-.27	1.36
sb13	2.03	1.28	se13	-.73	1.44
sb14	3.64	1.02	se14	1.27	1.26
sb15	4.00	.89	se15	1.70	1.10
sb16	3.42	1.04	se16	2.13	.90
sb17	3.46	.96	se17	2.07	.90
sb18	3.58	.94	se18	1.94	.89
sb19	3.11	1.05	se19	2.08	.93
sb20	3.43	1.14	se20	-1.93	1.16
sb21	2.13	1.38	se21	-1.33	1.24
sb22	3.89	.96	se22	1.54	1.17
sb23	2.51	1.34	se23	-1.41	1.28
sb24	3.70	.96	se24	1.88	.92
sb25	2.18	1.36	se25	-1.07	1.39
sb26	3.60	1.17	se26	-1.15	1.52
sb27	3.65	.88	se27	1.94	.95
sb28	3.19	1.15	se28	-1.97	1.13
sb29	1.41	1.05	se29	-.55	1.34
sb30	3.27	1.09	se30	-2.01	1.26
sb31	4.26	.70	se31	2.43	.70
sb32	2.67	1.06	se32	-1.04	1.40
sb33	4.11	.70	se33	2.29	.75
sb34	3.19	1.21	se34	-1.96	1.39
sb35	4.15	.74	se35	2.40	.77
sb36	4.25	.71	se36	2.25	.85
sb37	2.48	1.24	se37	-1.08	1.45
sb38	3.42	1.08	se38	-2.19	1.05

sb39	3.85	1.06	se39	-2.50	.93
sb40	3.88	.76	se40	2.17	.94
sb41	3.45	1.13	se41	-2.09	1.23
sb42	3.91	.79	se42	2.34	.80
sb43	3.75	1.10	se43	-2.58	.95
sb44	4.17	.97	se44	2.56	.79
sb45	4.22	.72	se45	2.29	.78
nb1	3.64	1.26	ne1	1.75	1.26
nb2	3.74	1.04	ne2	1.72	1.11
nb3	3.76	1.23	ne3	-2.18	1.17
nb4	3.25	1.32	ne4	-1.88	1.27
nb5	2.96	1.33	ne5	-1.16	1.43
nb6	1.16	1.27	ne6	1.50	1.72
nb7	4.04	.98	ne7	2.07	1.03
nb8	2.78	1.30	ne8	1.27	1.44
nb9	3.24	1.36	ne9	-1.89	1.29
nb10	3.35	1.30	ne10	-1.78	1.29
nb11	3.40	1.15	ne11	1.57	1.24
nb12	3.60	1.31	ne12	1.61	1.63
nb13	3.79	1.26	ne13	-1.65	1.39
nb14	3.77	1.02	ne14	1.79	1.15
nb15	4.07	1.14	ne15	-2.28	1.13
nb16	4.17	1.10	ne16	-2.29	1.19

but not concerned about my welfare," and the highest score was for item se44, "My counselor would keep my secrets." Higher scores suggest that respondents evaluated the stated outcome or quality more favorably while lower scores indicate that they rated the outcome or quality more unfavorably.

The means of 29 of the 61 evaluation items (se4, se5, se7, se11, se12, se13, se20, se21, se23, se25, se26, se28, se29, se30, se32, se34, se37, se38, se39, se41, se43, ne3, ne4, ne5, ne9, ne10, ne13, ne15, & ne16) ranged below zero (0), while the means of the remaining 32 items scored above zero (0). This finding implies that the 29 items were perceived by respondents as negative outcomes of seeking counseling. Therefore, higher scores on the 29 belief items which correspond to these evaluation items can also be interpreted to reflect more negative attitudes toward seeking counseling. Despite this finding, it should be noted that some of the evaluation items converged on zero (0) as the absolute values of their means were less than one (1). Those items that converged on zero (0) were se5 ("being forced to express my feelings"), se8 ("I would have to confront my problems"), se11 ("costing a lot of time and energy"), se12 ("I would have to change the ways that are familiar to me"), se13 ("having to reveal thoughts and experiences of which I am ashamed"), and se29 ("having to talk about my personal history to a stranger").

This finding can be interpreted in two ways. The first possible interpretation is that respondents perceived these items as basically neutral. In other words, respondents may not be disturbed by these particular negative outcomes or qualities as much as by other aversive outcomes or qualities represented in items such as se39, "trying to manipulate me" (M = -2.51, SD = .92). A second interpretation of this finding is that respondents' ratings were bipolarized on these items. In other words, some people might

perceive these items favorably while others evaluate them unfavorably. This second hypothesis is supported by the relatively large standard deviations of these four items that range from 1.30 (se11) to1.59 (se5).

Factor Structure of the Belief Scale by Varimax Rotation

The initial factor extraction of the belief scale resulted in 10 factors with eigenvalues of 1.00 or greater. Looking at the percent of variance explained (Table 9) and the scree plot (Figure 2), a five-factor solution appeared to best represent the belief scale of the BEACS.

Based on this finding, additional factor analyses were conducted using a five-factor solution until all the criteria for sound construct validity were met. As a criteria, items highly loading (.40 or higher) on multiple factors were eliminated. Items that loaded lower than .40 on their primary factor were also eliminated. In addition, the percent of variance explained by each factor and the total scale, number of items loading on a factor, and contents of each factor were examined. As a result, three exploratory factor analyses were conducted until clearly independent (without any split loadings) and interpretable five factors were derived. Together these five factors explained 48% of the total variance. The results of the factor analysis are reported in Table 10.

As the left half of Table 10 (the 1st EFA) shows, 59 of the original 61 items loaded uniquely (.40 or higher) on one of the five factors, whereas two items (sb8 & sb12) loaded on two factors (.40 or higher). In addition, three items (sb26, nb6 & nb13) loaded lower than .40 on their primary factor. When these five items were eliminated, the remaining 56 items were submitted to a second factor analysis with a five-factor solution. As a result, it was found that one item (sb30) loaded .40 or higher on two factors. This

Table 9

Initial Factor Extraction of the 61-Item Belief Scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	13.19	21.63	21.63	13.19	21.63	21.63	9.04
2	7.45	12.22	33.85	7.45	12.22	33.85	5.42
3	4.33	7.10	40.95	4.33	7.10	40.95	4.53
4	2.66	4.37	45.31	2.66	4.37	45.31	4.40
5	1.80	2.95	48.27	1.80	2.95	48.27	4.18
6	1.42	2.32	50.59	1.42	2.32	50.59	2.78
7	1.28	2.10	52.69	1.28	2.10	52.69	1.40
8	1.21	1.99	54.68	1.21	1.99	54.68	1.36
9	1.14	1.87	56.55	1.14	1.87	56.55	1.25
10	1.10	1.81	58.36	1.10	1.81	58.36	1.23

Note. The 10 largest among the 61 initial components were only presented in this Table

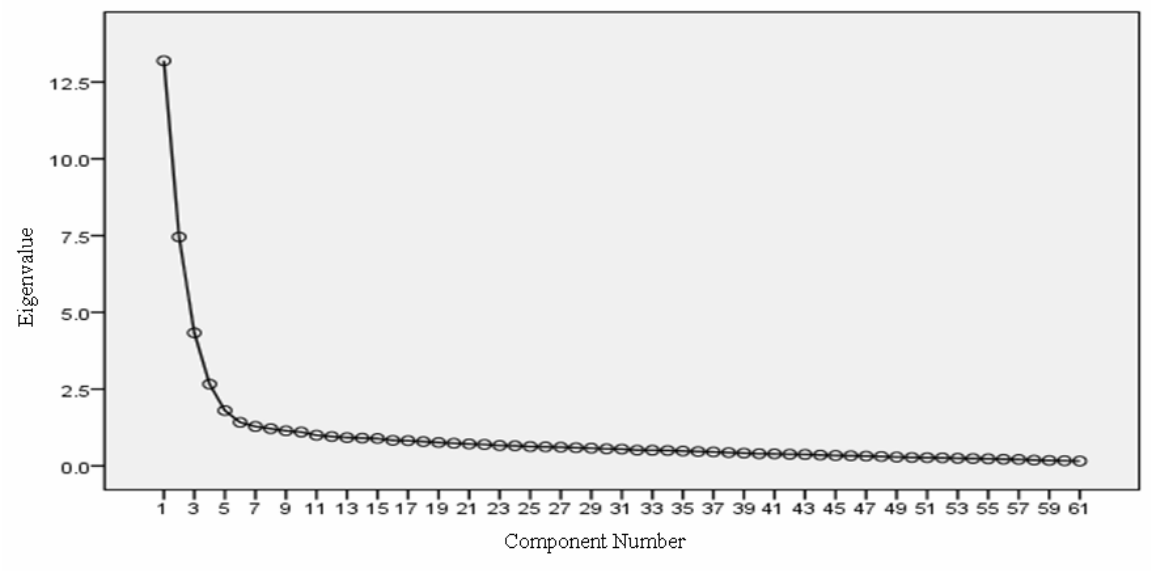

Figure 2. Scree Plot of the 61 Belief Items of the BEACS

Table 10

Exploratory Factor Analyses (EFA) with Varimax Rotation for the Belief Scale

	The 1st EFA (61 Belief Items)					The 3rd EFA (55 Belief Items)				
Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 1 Positive Outcome	Factor 2 Social Norm	Factor 3 Negative Outcome	Factor 4 Positive Quality	Factor 5 Negative Quality
sb1	.68	-.01	-.03	.08	-.03	.67	-.02	-.04	.08	-.03
sb2	.66	.09	.12	.02	-.17	.67	.09	.09	.02	-.15
sb3	.74	.08	.12	.00	-.13	.74	.08	.11	-.00	-.14
sb6	.48	.04	.22	.33	-.12	.51	.03	.21	.31	-.12
sb9	.79	.08	.06	.15	-.11	.78	.08	.05	.14	-.10
sb10	.82	.11	.00	.08	-.02	.82	.11	-.00	.07	-.04
sb14	.81	.11	.12	.14	-.02	.81	.11	.10	.14	-.03
sb15	.49	.09	.11	.29	-.06	.51	.08	.10	.28	-.06
sb16	.78	.12	.04	.20	-.05	.78	.11	.04	.18	-.04
sb17	.74	.16	.01	.27	-.06	.75	.16	.01	.24	-.10
sb18	.73	.11	.03	.18	-.04	.73	.10	.02	.17	-.05
sb19	.67	.08	.15	.09	-.03	.67	.09	.13	.08	-.04
sb22	.57	.10	.17	.29	-.14	.58	.09	.16	.27	-.15
sb24	.57	.18	.06	.32	-.12	.58	.17	.05	.32	-.11
sb27	.64	.07	.00	.30	-.13	.64	.07	-.00	.28	-.16
sb30**	-.43	-.12	.35	-.02	.37					
nb1	.04	.66	.01	.14	-.02	.04	.67	.03	.12	-.04
nb2	.30	.62	.14	.14	-.03	.31	.62	.16	.13	-.06
nb3	-.04	-.73	.08	-.05	.12	-.03	-.74	.08	-.03	.12
nb4	.05	-.46	.22	.00	.03	.05	-.45	.28	-.03	-.03
nb5	-.05	-.57	.08	.09	.13	-.06	-.57	.16	.04	.04
nb6*	.09	.37	-.03	.28	.11					
nb7	.10	.77	.00	.16	-.01	.09	.76	.04	.14	-.05
nb8	.10	.51	-.03	.01	.09	.11	.51	-.05	.03	.13
nb9	.01	-.63	.22	.08	.05	.00	-.63	.26	.07	.01
nb10	-.01	-.66	.21	.03	.16	-.01	-.66	.27	.01	.09
nb11	.25	.70	.01	.15	-.04	.25	.71	.05	.13	-.07
nb12	.09	.64	-.00	.09	-.04	.09	.64	.01	.07	-.07
nb13*	.04	-.34	-.04	.03	.30					
nb14	.23	.75	.03	.14	-.03	.22	.71	.08	.13	-.06
nb15	-.04	-.65	.14	.00	.31	-.03	-.66	.17	.01	.30
nb16	-.08	-.61	.02	-.06	.30	-.07	-.62	.05	-.04	.29
sb4	.16	-.00	.41	-.02	.07	.17	-.01	.41	-.03	.06
sb5	.06	-.05	.65	.00	.06	.08	-.06	.66	-.01	.01
sb7	.02	-.03	.44	.12	.34	.02	-.03	.47	.13	.31
sb8*	.44	-.03	.48	.11	-.01					
sb11	-.06	-.04	.64	.06	.28	-.03	-.05	.64	.07	.27
sb12*	.40	-.07	.55	-.07	.02					

sb13	.25	-.10	.65	.00	.05	.25	-.11	.63	.02	.06
sb20	.21	.02	.43	-.16	.26	.22	.01	.46	-.17	.23
sb21	-.04	-.07	.66	.12	.11	-.02	-.07	.69	.10	.08
sb23	-.13	-.16	.72	-.05	.10	-.11	-.17	.73	-.06	.08
sb25	.25	-.02	.58	-.01	.04	.26	-.02	.58	-.00	.03
sb28	-.09	-.09	.43	-.15	.36	-.08	-.10	.45	-.15	.35
sb29	.01	-.06	.55	.12	.18	.03	-.07	.54	.14	.18
sb31	.29	.04	-.00	.66	-.11	.30	.03	-.01	.65	-.14
sb33	.13	.00	.13	.68	-.08	.14	.00	.11	.69	-.08
sb35	.25	.08	-.01	.72	-.11	.26	.09	-.01	.72	-.13
sb36	.17	.08	.05	.77	-.05	.18	.09	.04	.78	-.05
sb40	.38	.19	-.06	.53	-.26	.38	.20	-.05	.52	-.28
sb42	.36	.17	-.10	.55	-.33	.37	.17	-.11	.53	-.35
sb44	.21	.09	.01	.50	-.25	.23	.10	-.00	.48	-.27
sb45	.21	.06	-.01	.69	.02	.22	.06	-.02	.70	.01
sb26*	.01	-.11	.19	.09	.35					
sb32	-.14	-.05	.26	-.04	.51	-.12	-.06	.29	-.03	.50
sb34	-.09	-.11	.22	-.15	.65	-.09	-.12	.23	-.11	.67
sb37	-.13	.01	.03	.00	.57	-.14	.01	.04	.04	.60
sb38	-.25	-.11	.15	-.17	.62	-.24	-.12	.17	-.15	.62
sb39	-.11	-.08	.17	-.24	.67	-.11	-.09	.20	-.22	.67
sb41	-.09	-.22	.15	-.25	.62	-.09	-.23	.16	-.22	.64
sb43	-.11	-.09	.16	-.26	.65	-.10	-.10	.18	-.23	.66
Initial eigenvalues										
	13.19	7.45	4.33	2.66	1.80	12.61	6.76	4.12	2.54	1.66
% of Variance explained										
	21.63	12.22	7.10	4.37	2.95	22.93	12.30	7.49	4.61	3.03
% of Total										
	44.81	25.32	14.71	9.05	6.11	45.53	24.42	14.87	9.15	6.02

Note. The five items with a single asterisk (nb6, nb13, sb8, sb12 & sb26) were deleted based on the results of the initial factor analysis. The remaining 56 items were submitted to the second factor analysis, resulting in a deletion of a single item denoted by a double asterisk (sb30).

item was eliminated and a third factor analysis was conducted with the remaining 55 items. After this final test, five clearly-independent factors were extracted with all 55 items loading .40 or higher on one factor (the right half of Table 10), and explained 50.36% of the total variance.

Given that the 15 items loading on Factor 1 (items sb1, 2, 3, 6, 9, 10, 14, 15, 16, 17, 18, 19, 22, 24, & 27) seemed to reflect beliefs about positive outcomes of counseling (e.g., "I would learn new behaviors and skills"), this factor was labeled "Positive Outcome." The 14 items loading on Factor 2 (items nb1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, 14, 15, & 16) referred to the anticipated reactions of others toward the person seeking counseling (e.g., "make fun of me"), thus Factor 2 was termed "Social Norm," following Fishbein and Ajzen's (1975) term in the TRA. Further, Factor 3 was named "Negative Outcome," since the 11 items loading on this factor (items sb4, 5, 7, 11, 13, 20, 21, 23, 25, 28, & 29) seemed to reflect beliefs about negative outcomes of counseling (e.g., "I would have to reveal thoughts and experiences of which I am ashamed"). The 8 items loading on Factor 4 (items sb31, 33, 35, 36, 40, 42, 44, & 45) referred to positive qualities of counselors (e.g., "my counselor would have good listening skills"), thus Factor 4 was labeled "Positive Quality." Finally, as the 7 items having the highest loading on Factor 5 (items sb32, 34, 37, 38, 39, 41, & 43) referred to negative characteristics of counselors (e.g., "my counselor would be biased"), this factor was named "Negative Quality."

Item-Total Statistics of the 55 Belief Items

An examination of the internal consistency reliability of the belief scale was conducted. Negatively worded items were reverse-coded before submitting them to an item analysis. Results showed that Cronbach's alpha for the total score was .92 and each

item seemed to contribute significantly to the total belief scale. This was evidenced by the decreased Cronbach's alpha if an item was deleted (Table 11 the fourth column). The item to total scale correlation ranged from .08 (sb4 & sb25) to .61 (sb42) with the squared multiple correlation ranging from .29 (sb4) to .72 (sb10 & sb14). Nine items (sb4, sb5, sb7, sb13, sb20, sb21, sb25, sb29, & sb33) had the lowest ranges of the item-total correlations (< .30). In addition, 12 items (sb1, sb6, sb11, sb15, sb19, sb36, sb37, sb45, nb4, nb5, nb8, & nb9) also had lower ranges of item-total correlations (lower than .40). These low ranges of the item-total correlation suggested that the belief scale of the BEACS consisted of multiple subscales. Therefore, an item analysis was also performed for each of the five subscales or factors. Table 11 presents the results of the item analyses for each subscale and for the total scale.

Cronbach's alphas of the first, second, third, fourth and fifth factors were .94, .90, .83, .86, and .83, respectively. Each item appeared to contribute significantly to its subscale, evidenced by the decreased Cronbach's alpha if an item was deleted (Table 11, the fourth column). The item to factor correlations ranged from .55 (sb6 & sb15) to .80 (sb14) for "Positive Outcome," from .42 (nb9) to .70 (nb3 & nb7) for "Social Norm," from .36 (sb4) to .61 (sb11 & sb23) for "Negative Outcome," from .52 (sb44) to .70 (sb35) for "Positive Quality," and from .43 (sb37) to .65 (sb39) for "Negative Quality." Additionally, the squared multiple correlations ranged from .34 (sb15) to .68 (sb10) for "Positive Outcome," from .15 (nb15) to .63 (nb16) for "Social Norm," from .18 (sb4) to .52 (sb23) for "Negative Outcome," from .31 (sb44) to .57 (sb36) for "Positive Quality," and from .20 (sb37) to .46 (sb39) for "Negative Quality."

Table 11

Item to Total Statistics for the 55-Item Belief Scale

	Subscale			Total Scale		
	Item-Factor Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted	Item-Total Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted[a]
Factor 1: Positive Outcome (Cronbach's α = .94)						
sb1	.61	.40	.93	.36	.45	.92
sb2	.62	.45	.93	.40	.54	.91
sb3	.69	.57	.93	.42	.63	.91
sb6	.55	.37	.94	.33	.51	.92
sb9	.77	.67	.93	.50	.71	.91
sb10	.78	.68	.93	.50	.72	.91
sb14	.80	.67	.93	.46	.72	.91
sb15	.55	.34	.94	.37	.41	.91
sb16	.78	.67	.93	.50	.71	.91
sb17	.77	.67	.93	.57	.70	.91
sb18	.72	.56	.93	.47	.58	.91
sb19	.63	.43	.93	.36	.54	.91
sb22	.62	.44	.93	.42	.53	.91
sb24	.64	.47	.93	.50	.56	.91
sb27	.66	.46	.93	.50	.57	.91
Factor 2: Social Norm (Cronbach's α = .90)						
nb1	.60	.43	.89	.41	.49	.91
nb2	.57	.52	.89	.48	.58	.91
nb3	.70	.51	.89	.49	.56	.91
nb4	.43	.32	.90	.30	.39	.92
nb5	.53	.39	.89	.39	.44	.91
nb7	.70	.20	.89	.50	.63	.91
nb8	.42	.61	.90	.30	.35	.92
nb9	.58	.23	.89	.39	.58	.91
nb10	.66	.53	.89	.48	.64	.91
nb11	.66	.61	.89	.55	.65	.91
nb12	.56	.61	.89	.42	.43	.91
nb14	.66	.38	.89	.52	.63	.91
nb15	.65	.15	.89	.53	.64	.91
nb16	.59	.63	.89	.51	.54	.91
Factor 3: Negative Outcome (Cronbach's α = .83)						
sb4	.36	.18	.83	.08	.29	.92
sb5	.54	.32	.81	.21	.38	.92
sb7	.47	.31	.82	.24	.42	.92
sb11	.61	.43	.81	.35	.51	.92

sb13	.54	.38	.81	.15	.52	.92
sb20	.44	.21	.82	.17	.39	.92
sb21	.56	.46	.81	.27	.54	.92
sb23	.61	.52	.81	.44	.59	.91
sb25	.49	.34	.82	.08	.44	.92
sb28	.44	.23	.82	.42	.39	.91
sb29	.49	.28	.82	.22	.41	.92
Factor 4: Positive Quality (Cronbach's α = .86)						
sb31	.62	.41	.85	.42	.54	.91
sb33	.53	.34	.86	.28	.48	.92
sb35	.70	.58	.84	.44	.65	.91
sb36	.69	.57	.84	.38	.64	.92
sb40	.63	.45	.85	.59	.59	.91
sb42	.65	.50	.84	.61	.60	.91
sb44	.52	.31	.86	.41	.45	.91
sb45	.63	.42	.85	.36	.51	.92
Factor 5: Negative Quality (Cronbach's α = .83)						
sb32	.47	.23	.82	.40	.33	.91
sb34	.62	.39	.80	.49	.48	.91
sb37	.43	.20	.83	.30	.30	.92
sb38	.62	.41	.80	.54	.50	.91
sb39	.65	.46	.80	.51	.56	.91
sb41	.64	.45	.80	.55	.53	.91
sb43	.63	.41	.80	.50	.49	.91

[a]Cronbach's α for the total scale (55 belief items) = .92

Factor Correlations of 55-Item Belief Scale

Thus far, the five factors extracted through a principal component factor analysis have been reviewed. These factors were derived by an orthogonal rotation (Varimax) methodology. The basic premise of the Varimax rotation is an assumption that factors are independent and uncorrelated to one another. Reviewing each of the five factors, however, raised the possibility that these factors might be correlated to one another. Apparently, both Factor 1 (Positive Outcome) and Factor 3 (Negative Outcome) seemed to measure the same construct, *counseling outcome*, while Factor 4 (Positive Quality) and Factor 5 (Negative Quality) involved *counselor qualities*. Therefore, conceptually, the belief scale appeared to consist of three components instead of five: *counseling outcomes*, *counselor qualities*, and *social norms*. From this alternative perspective (i.e., the three-factor model instead of the five-factor model), the five factors derived from the exploratory factor analysis may be a simple reflection of directionality (positive or negative) of the items rather than a true manifestation of five content domains thematically distinguished from one another. To test this hypothesis, the scores of the five factors were submitted to a correlation analysis. Negatively worded items were reverse-coded before scores were computed. The results are reported in Table 12.

Results showed that responses to the five factors were somewhat correlated to one another. The sizes of the correlation coefficients were moderate, ranging from -.16 to .58. Specifically, Factor 1, Positive Outcome, had positive correlations with Factor 2, Social Norm (r = .27), Factor 4, Positive Quality (r = .58) and Factor 5, Negative Quality (r = .33) at the .01 level. This finding suggests that participants that expected positive outcomes in counseling also expected positive reactions from others. In addition, in this

Table 12

Pearson's r Correlation Matrix for the 55-Item Belief Scale

	Factor 1	Factor 3	Factor 4	Factor 5	Factor 2
Factor 1: Positive Outcome					
Factor 3: Negative Outcome	-.16 **				
Factor 4: Positive Quality	.58 **	.02			
Factor 5: Negative Quality	.33 **	.42 **	.46 **		
Factor 2: Social Norm	.27 **	.22 **	.28 **	.33 **	

Note. ** Correlation is significant at the .01 level (2-tailed).

study, these participants also might have been more likely to believe in a counselor's positive qualities and doubt negative traits in counselors. Factor 4 (Positive Quality) and Factor 5 (Negative Quality) were also correlated in a positive direction when items on Factor 5 were reversely coded. In other words, participants that believed more strongly that counselors had positive characteristics were less likely to believe that counselors had negative traits.

Nevertheless, the results appeared to reject the proposition that Factor 1 (Positive Outcome) and Factor 3 (Negative Outcome) might measure the same construct, *counseling outcome*, and thus could be viewed as a single component instead of two. Conceptually, these two factors appeared to relate to opposing constructs. It was thus hypothesized that they would be positively correlated when the negative items were reverse-coded. To the contrary, the Pearson correlation coefficient for Factor 1 and 3 was below zero ($r = -.16$, $p < .01$) when the items on Factor 3 were reverse-coded. This result implies that people who believed that seeking counseling would bring positive outcomes also believed that it would bring negative outcomes. In other words, respondents perceived the positive and negative outcomes as two separate components of the behavioral outcome of help-seeking. Therefore, the result supported the five-factor model of the belief scale and not the three-factor model.

Factor Structure of the Belief Scale by Oblimin Rotation

Based on the correlations among responses to the five factors, the researcher conducted another factor analysis for the initial 61 belief items of the BEACS using an oblique rotation. The purpose of this procedure was to ascertain whether the factor structure would change when rotated while allowing correlations among factors. Initial

factors were extracted by principal component analysis and were rotated with Oblimin, an oblique rotation method. Table 13 shows the pattern and structure matrices that resulted from the factor analysis with a five-factor solution.

The left and right halves of Table 13 show the pattern and structure matrices resulting from the first exploratory factor analysis using an oblique rotation. The structure matrix was used as a basis of eliminating items with double loadings (.40 or higher on multiple factors) or low loadings (lower than .40) and includes both unique and common variances. Alternatively, the pattern matrix revealed only the unique contributions of a factor ($1 - h^2$) on the item. Therefore, the present author believed that eliminating double-loading items based on the structure matrix as opposed to the pattern matrix was the more strict method to select items with unique loadings.

Based on the structure matrix, 15 double-loading items (sb6, sb7, sb8, sb11, sb12, sb15, sb17, sb22, sb24, sb27, sb28, sb30, sb40, sb42, & nb15) and three under-loading items (sb26, nb6, & nb13) were deleted, and the remaining 43 items were submitted to another factor analysis with the Oblimin rotation using a five-factor solution. A review of the structure matrix revealed that all 43 items loaded .40 or higher on one of the five factors. The five factors accounted for 51.77 % of the total variance. Table 14 presents the structure matrix from the third EFA for the 43 belief items of the BEACS.

A review of the results revealed that the factor structure extracted from the factor analysis using the Oblimin rotation was similar to the one extracted from the previous analysis using the Varimax rotation. In other words, five clearly interpretable factors were extracted, and each of the five factors was comprised basically of the same items that had loaded on the same factor in the previous analysis using the Varimax rotation. There were

Table 13

Pattern and Structure Matrices from the 1st EFA with Oblimin Rotation for the 61 Belief Items

	Pattern Matrix					Structure Matrix				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
sb1	.72	.11	.08	-.00	.04	.68	-.04	-.06	-.24	-.12
sb2	.67	-.10	-.04	.08	-.13	.69	-.17	-.17	-.19	-.23
sb3	.76	-.08	-.03	.11	-.09	.76	-.18	-.16	-.19	-.20
sb6**	.40	-.21	.01	-.28	-.10	.55	-.26	-.11	-.45	-.16
sb9	.79	-.01	-.01	-.04	-.04	.82	-.14	-.18	-.34	-.20
sb10	.86	.08	-.05	.03	.06	.83	-.09	-.20	-.28	-.14
sb14	.82	-.05	-.05	-.04	.05	.84	-.21	-.20	-.34	-.11
sb15**	.43	-.09	-.05	-.24	-.02	.55	-.16	-.16	-.41	-.13
sb16	.78	.03	-.05	-.10	.04	.82	-.12	-.21	-.38	-.15
sb17**	.71	.05	-.10	-.18	.02	.78	-.08	-.26	-.45	-.18
sb18	.73	.04	-.04	-.09	.04	.76	-.11	-.20	-.36	-.14
sb19	.68	-.10	-.04	.00	.01	.70	-.22	-.15	-.25	-.10
sb22**	.50	-.15	-.04	-.23	-.10	.64	-.22	-.18	-.44	-.20
sb24**	.51	-.03	-.12	-.26	-.06	.64	-.10	-.26	-.47	-.21
sb27**	.60	.04	.00	-.23	-.06	.69	-.06	-.17	-.45	-.23
sb30**	.46	.34	-.04	.06	-.29	.45	.36	-.22	-.14	-.49
sb4	-.13	.41	.02	-.05	-.03	-.18	.43	-.03	.02	-.13
sb5	.02	.67	-.01	-.01	.04	-.11	.66	-.10	.02	-.17
sb7**	.02	.40	.02	.15	-.30	-.04	.49	-.08	.12	-.41
sb8**	-.39	.46	-.05	.06	.04	-.49	.53	-.02	.22	-.02
sb11**	.14	.63	.02	.08	-.20	.03	.67	-.12	.04	-.40
sb12**	-.39	.54	-.06	-.14	.04	-.43	.59	-.08	.02	-.08
sb13	-.20	.65	-.08	-.03	.03	-.29	.69	-.13	.07	-.15
sb20	-.24	.39	.07	-.19	-.23	-.21	.49	-.02	-.11	-.32
sb21	.15	.68	-.02	.14	-.01	-.01	.67	-.13	.11	-.23
sb23	.21	.75	-.10	-.04	.03	.10	.72	-.24	-.09	-.26
sb25	-.20	.59	.00	-.06	.03	-.29	.61	-.04	.05	-.12
sb28**	.08	.40	-.03	-.14	-.29	.12	.47	-.18	-.20	-.46
sb29	.06	.55	-.02	.14	-.11	-.06	.58	-.11	.12	-.27
nb1	-.05	-.06	-.68	-.10	.04	.12	.02	-.67	-.20	-.09
nb2	.22	-.17	-.62	-.07	.02	.39	-.13	-.65	-.26	-.11
nb3	-.04	.02	-.74	.00	-.06	.11	.14	-.75	-.12	-.21
nb4	-.08	.20	-.47	.02	.03	-.03	.27	-.47	-.02	-.11
nb5	.03	.03	-.58	.15	-.09	.10	.14	-.58	.03	-.20
nb6*	-.03	-.05	.37	.27	-.19	-.15	-.03	.39	.31	-.05
nb7	-.00	-.05	-.78	-.12	.05	.19	.03	-.78	-.24	-.11
nb8	.08	.03	-.53	.02	.15	.14	.05	-.51	-.07	.02
nb9	-.03	.18	-.64	.13	.02	.01	.27	-.64	.05	-.14
nb10	-.03	.15	-.67	.09	-.09	.06	.28	-.69	-.02	-.26
nb11	.17	-.05	-.70	-.08	.04	.34	.00	-.74	-.26	-.14

nb12	.02	-.04	-.65	-.05	.02	.17	.04	-.65	-.17	-.12
nb13*	-.12	-.13	-.34	.07	-.32	.01	.03	-.35	-.00	-.31
nb14	.15	-.07	-.75	-.08	.05	.32	-.01	-.77	-.25	-.13
nb15**	-.03	.05	-.65	.07	-.27	.11	.23	-.69	-.07	-.40
nb16	-.01	-.06	-.60	-.00	-.26	.17	.10	-.65	-.14	-.37
sb31	.16	.03	.03	-.66	-.06	.39	-.02	-.12	-.72	-.19
sb33	-.04	-.13	.04	-.71	-.06	.24	-.14	-.06	-.70	-.12
sb35	.10	.03	-.02	-.73	-.05	.37	-.01	-.17	-.77	-.19
sb36	-.01	-.04	-.03	-.79	-.00	.29	-.07	-.16	-.80	-.12
sb40**	.26	.05	-.12	-.50	-.19	.49	.06	-.30	-.63	-.36
sb42**	.22	.09	-.09	-.52	-.26	.46	.11	-.28	-.65	-.43
sb44	.08	-.04	-.04	-.49	-.23	.31	-.00	-.18	-.56	-.31
sb45	.08	.06	-.01	-.71	.09	.31	-.02	-.13	-.72	-.05
sb26*	-.02	.13	-.09	.12	-.35	.00	.26	-.16	.07	-.39
sb32	.12	.20	.01	-.01	-.49	.18	.32	-.14	-.11	-.57
sb34	.01	.12	-.04	-.11	-.64	.17	.30	-.21	-.22	-.70
sb37	.08	-.06	.08	.05	-.61	.18	.10	-.05	-.06	-.58
sb38	.17	.06	-.03	-.12	-.60	.33	.21	-.22	-.28	-.68
sb39	.00	.06	-.00	-.21	-.67	.20	.25	-.19	-.31	-.73
sb41	-.03	.04	-.15	-.22	-.61	.19	.23	-.31	-.33	-.68
sb43	-.01	.06	-.02	-.23	-.64	.20	.25	-.20	-.33	-.70
Total percent of variance explained = 48.27%										
Eigenvalues (% of variance explained)										
	13.19 (21.63)	7.45 (12.22)	4.33 (7.10)	2.66 (4.37)	1.80 (2.95)					

Note. Underlines indicate loadings .40 or higher. Items with a single asterisk loaded lower than .40 in the structure matrix. Items with double asterisks double loaded (.40 or higher) in the structure matrix.

Table 14

Pattern and Structure Matrices from the 2nd EFA with Oblimin Rotation for the 43 Belief Items

	Pattern Matrix					Structure Matrix				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 1 Positive Outcome	Factor 2 Negative Outcome	Factor 3 Social Norm	Factor 4 Positive Quality	Factor 5 Negative Quality
sb1	.71	.11	.08	-.05	.01	.68	-.06	-.08	-.24	-.15
sb2	.66	-.07	-.04	.03	-.10	.70	-.17	-.18	-.21	-.21
sb3	.76	-.06	-.02	.04	-.11	.79	-.19	-.17	-.22	-.23
sb9	.79	.00	-.01	-.08	-.07	.83	-.15	-.20	-.34	-.25
sb10	.84	.07	-.04	-.02	-.00	.84	-.10	-.22	-.27	-.20
sb14	.79	-.05	-.05	-.10	.02	.84	-.22	-.21	-.34	-.16
sb16	.77	.03	-.02	-.14	-.01	.81	-.13	-.20	-.37	-.21
sb18	.72	.02	-.02	-.11	-.02	.75	-.13	-.19	-.34	-.20
sb19	.68	-.10	-.03	-.01	-.01	.71	-.23	-.15	-.23	-.13
sb4	-.17	.38	.02	-.03	-.04	-.23	.42	-.01	.04	-.12
sb5	.00	.69	.02	-.05	.03	-.13	.68	-.08	.00	-.16
sb13	-.20	.62	-.06	.01	-.05	-.31	.69	-.11	.08	-.19
sb20	-.24	.41	.06	-.17	-.22	-.24	.50	-.02	-.12	-.31
sb21	.18	.74	.02	.12	-.04	-.01	.72	-.10	.11	-.23
sb23	.19	.77	-.08	-.06	-.01	.06	.75	-.24	-.09	-.29
sb25	-.21	.57	.01	-.03	-.05	-.32	.62	-.04	.07	-.16
sb29	.04	.51	-.01	.16	-.19	-.07	.56	-.09	.13	-.29
nb1	-.09	-.11	-.70	-.08	-.02	.10	.00	-.69	-.18	-.13
nb2	.17	-.22	-.64	-.08	-.03	.38	-.17	-.66	-.26	-.15
nb3	-.07	-.01	-.75	.02	-.08	.09	.13	-.75	-.11	-.21
nb4	-.05	.30	-.46	.00	.07	-.04	.35	-.48	-.02	-.08
nb5	.04	.15	-.58	.08	.00	.10	.23	-.60	-.02	-.14
nb7	-.04	-.12	-.79	-.10	-.02	.18	-.00	-.78	-.23	-.16
nb8	.08	.05	-.55	.00	.15	.15	.07	-.54	-.07	.02
nb9	.01	.28	-.62	.12	.05	.03	.36	-.63	.05	-.11
nb10	.00	.27	-.64	.07	-.04	.06	.37	-.67	-.03	-.22
nb11	.12	-.12	-.73	-.06	-.04	.32	-.04	-.76	-.23	-.19
nb12	-.03	-.09	-.67	-.01	-.05	.14	.02	-.66	-.13	-.16
nb14	.10	-.15	-.73	-.06	-.04	.30	-.07	-.74	-.23	-.18
nb16	-.02	.00	-.58	-.01	-.22	.14	.14	-.62	-.15	-.33
sb31	.13	.02	.02	-.68	-.06	.34	-.04	-.13	-.73	-.26
sb33	-.05	-.10	.03	-.73	-.04	.19	-.13	-.08	-.73	-.18
sb35	.10	.04	-.02	-.74	-.05	.33	-.02	-.18	-.78	-.27
sb36	.01	-.00	-.05	-.83	.03	.26	-.06	-.18	-.83	-.20
sb44	.10	.00	-.03	-.49	-.20	.29	.01	-.17	-.57	-.35
sb45	.09	.08	-.02	-.75	.12	.28	-.02	-.15	-.74	-.11
sb32	.08	.15	-.00	.04	-.54	.14	.27	-.14	-.12	-.58
sb34	.01	.08	-.04	-.02	-.70	.15	.27	-.20	-.21	-.74
sb37	.08	-.10	.06	.14	-.67	.18	.06	-.05	-.05	-.61

sb38	.15	.05	-.03	-.05	-.65	.29	.19	-.20	-.27	-.71
sb39	-.02	.06	-.02	-.14	-.70	.15	.24	-.18	-.31	-.75
sb41	-.05	.01	-.18	-.11	-.67	.15	.21	-.32	-.30	-.73
sb43	-.02	.05	-.03	-.15	-.69	.16	.23	-.19	-.32	-.74
Total percent of variance explained = 51.77%										
Eigenvalues =						9.13	5.49	3.67	2.35	1.62
(% of variance explained) =						(21.24)	(12.78)	(8.54)	(5.46)	(3.76)

Note. Underlines indicate loadings .40 or higher.

two differences between the analyses using the Oblimin versus Varimax rotation methods. The first difference was related to the number of items. When using the varimax method, 7 to 15 items loaded on each factor, whereas 6 to 13 items loaded on each factor when the Oblimin rotation method was utilized. The second difference involved differences in the factor order. For instance, "Social Norm" was Factor 2 when the Varimax rotation was utilized, but was listed as the third factor when the Oblimin rotation method was employed.

A review of each factor extracted by the factor analysis using the Oblimin rotation revealed that Factor 1 consisted of nine items (sb1, sb2, sb3, sb9, sb10, sb14, sb16, sb18, & sb19) that had previously loaded on the "Positive Outcome." Eight items (sb4, sb5, sb13, sb20, sb21, sb23, sb25, & sb29) constituted Factor 2, "Negative Outcome." Factor 4 comprised six items (sb31, sb33, sb35, sb36, sb44, & sb45) that had previously loaded on the "Positive Quality" factor when the Varimax rotation was used. Seven items (sb32, sb34, sb37, sb38, sb39, sb41 & sb43) constituted Factor 5, "Negative Quality." Finally, all 13 *nb* items were grouped together to form Factor 3, "Social Norm."

Item-Total Statistics of the 43-Item Belief Scale

An examination of the internal consistency reliability of the belief scale was conducted. Negatively sentenced items were reverse-coded before submitting them to an item analysis. Cronbach's alpha for the total 43-item belief scale was .89. Though this Cronbach's alpha was slightly lower than the Cronbach's alpha for the 55-item belief scale (.92), it was still relatively high. In addition to the total scale, each subscale was subject to an item analysis. Table 15 presents the results of the item analysis for each subscale.

Table 15

Item to Total Statistics for the 43-Item Belief Scale

	Subscale			Total Scale		
	Item-Factor Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted	Item-Total Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted[a]
Factor 1: Positive Outcome (Cronbach's α = .92)						
sb1	.61	.39	.92	.31	.42	.89
sb2	.63	.43	.91	.35	.50	.89
sb3	.72	.56	.91	.38	.61	.89
sb9	.79	.66	.90	.45	.70	.88
sb10	.78	.66	.90	.44	.69	.88
sb14	.78	.63	.90	.40	.69	.89
sb16	.77	.62	.90	.45	.65	.88
sb18	.70	.51	.91	.41	.53	.89
sb19	.62	.41	.91	.30	.49	.89
Factor 2: Negative Outcome (Cronbach's α = .79)						
sb4	.33	.14	.79	.07	.25	.89
sb5	.54	.31	.75	.22	.37	.89
sb13	.56	.36	.75	.17	.49	.89
sb20	.42	.19	.77	.18	.34	.89
sb21	.55	.46	.75	.28	.52	.89
sb23	.58	.48	.74	.44	.56	.88
sb25	.50	.33	.76	.11	.41	.89
sb29	.46	.25	.77	.23	.36	.89
Factor 3: Social Norm (Cronbach's α = .89)						
nb1	.60	.43	.88	.44	.47	.88
nb2	.58	.52	.88	.48	.56	.88
nb3	.69	.50	.87	.51	.54	.88
nb4	.44	.32	.89	.34	.38	.89
nb5	.54	.38	.88	.42	.42	.89
nb7	.70	.57	.88	.53	.62	.88
nb8	.43	.23	.89	.33	.33	.89
nb9	.57	.53	.88	.43	.57	.89
nb10	.64	.58	.88	.52	.62	.88
nb11	.66	.60	.88	.56	.62	.88
nb12	.56	.36	.88	.44	.42	.88
nb14	.65	.59	.88	.53	.61	.88
nb16	.56	.37	.88	.51	.41	.88
Factor 4: Positive Quality (Cronbach's α = .82)						
sb31	.58	.35	.80	.38	.49	.89
sb33	.54	.33	.81	.25	.43	.89
sb35	.67	.54	.78	.41	.59	.89
sb36	.70	.57	.77	.36	.61	.89
sb44	.48	.27	.83	.38	.41	.89

sb45	.63	.40	.79	.32	.47	.89
Factor 5: Negative Quality (Cronbach's α = .83)						
sb32	.47	.23	.82	.38	.29	.89
sb34	.62	.39	.80	.48	.46	.88
sb37	.43	.20	.83	.28	.29	.89
sb38	.62	.41	.80	.52	.48	.88
sb39	.65	.46	.80	.49	.52	.88
sb41	.64	.45	.80	.54	.51	.88
sb43	.63	.41	.80	.49	.48	.88

[a]Cronbach's α for the total scale (43 belief items) = .89

Cronbach's alphas for the Positive Outcome, Negative Outcome, Positive Quality, Negative Quality, and Social Norm were .92, .79, .82, .83, and .89, respectively. All items, except item sb44, appeared to contribute significantly to a subscale, evidenced by the decreased Cronbach's alpha if an item was deleted. The item to factor correlations ranged from .61 (sb1) to .79 (sb9) for "Positive Outcome," from .33 (sb4) to .58 (sb23) for "Negative Outcome," from .43 (sb37) to .65 (sb39) for "Positive Quality," from .43 (sb37) to .65 (sb39) for "Negative Quality," and from .43 (nb8) to .70 (nb7) for "Social Norm."

Factor Correlations of 43-Item Belief Scale

To compare with the factor correlations of the 55-item belief scale (Table 12), the summed scores of each factor were computed and submitted to a correlation analysis. Negatively worded items were reverse-coded before the sum scores were computed. The results are reported in Table 16. Significant correlations ($p < .01$) were found between responses to the five factors with the exception of the relationship between Negative Outcome and Positive Quality ($r = -.05$). The sizes of the correlation coefficients were slightly lower than those from the previous 55-item belief scale (Table 12), and ranged from -.21 to .44 (see Table 16).

Comparison between 55- and 43-Item Belief Scales

Thus far, two versions of the belief scale were identified. One version incorporated 55 items that had been identified by using an orthogonal rotation method (Varimax). The second included 43 items selected using an oblique rotation method (Oblimin). Both versions of the BEACS had 5 factors including Positive Outcome, Negative Outcome, Positive Quality, Negative Quality, and Social Norm. A close review

Table 16

Pearson's r Correlation Matrix for the 43-Item Belief Scale

	Factor 1	Factor 2	Factor 4	Factor 5	Factor 3
Factor 1: Positive Outcome					
Factor 2: Negative Outcome	-.21 **				
Factor 4: Positive Quality	.44 **	-.05			
Factor 5: Negative Quality	.30 **	.35 **	.39 **		
Factor 3: Social Norm	.25 **	.18 **	.22 **	.32 **	

Note. ** Correlation is significant at the .01 level (2-tailed).

of both versions suggested that the 43 item scale would be most appropriate for further analyses. The most pertinent reason for choosing the 43-item version of the BEACS related to the use of the oblique rotation in the scale's development. Ultimately, the oblique rotation appeared to better represent the conceptual factor structure for the BEACS than the orthogonal method because responses to the five components were expected to be correlated one another. Second, the five factors of the 43-item belief scale explained a larger percentage of the total variance (51.77%) than the 55-item scale (50.36%). Third, as presented in Tables 12 and 16, responses to the five factors of the 43-item scale were less correlated to one another than were the responses to the factors of the 55-item scale. This finding implies that factors for the 43-item scale were more unique. For a further assessment of the factor correlations based on the five-factor solution determined by the Oblimin rotation, a component correlation matrix based on this factor solution was conducted (see Table 17). Result indicated that the correlation coefficients were minimal to moderate, ranging from -.27 to .21. This finding implied that responses to the factors tied to the 43-iem scale were correlated to one another. This justified the use of an oblique rotation, whereby the factors were unique enough to validate the factor solution.

Finally, the 43-item scale was considered more advantageous due to its shorter length. Though deleting items from a scale generally impairs internal consistency, the 43-item scale had only slightly lower ranges of internal consistency coefficients than the 55-item scale and the differences were not substantial (see Tables 11 & 15). Therefore, reliability was not a concern and the 43-item version of the belief scale was selected and submitted to the following analyses for the attitude scale.

Table 17

Component Correlation Matrix Based on the 5-Factor Solution by Oblimin Rotation for the 43-Item Belief Scale

	Factor 1	Factor 2	Factor 4	Factor 5	Factor 3
Factor 1: Positive Outcome					
Factor 2: Negative Outcome	-.22				
Factor 4: Positive Quality	-.25	.07			
Factor 5: Negative Quality	-.20	-.27	.21		
Factor 3: Social Norm	-.20	-.14	.14	.20	

Results Involving the Attitude Scale

Descriptive Analysis of Attitude Items

For the second phase of the factor analysis of the BEACS, scores for the 43 attitude items were computed by multiplying corresponding belief and evaluation item scores. The purpose of this second phase was to explore latent variables within the attitude item set—the underlying construct that the BEACS aims to measure.

Mean scores for these items had a potential range of -15 to 15. Table 18 shows the means and standard deviations of the 43 attitude items of the BEACS. The mean attitude item scores ranged from -4.12 (*SD* = 4.49) for item SA21, "Counselor would make me nervous," to 11.00 (*SD* = 4.05) for item SA44, "Keep my secrets." Higher scores reflect more positive attitudes, while lower scores suggest more negative attitudes.

The absolute values of the mean scores ranged from .13 (*SD* = 5.30) for item SA5, "Forced to express my feelings," to 11.00 (*SD* = 4.05) for item SA44. Higher absolute values indicate clearer or stronger attitudes and lower absolute values reflect that either respondents were indecisive or that they felt those attributes less salient. Since Fishbein and Ajzen (1975) suggested that only the most salient attributes should be used to measure a person's attitudes toward an object or an action, the item SA5 ("Forced to express my feelings") was considered for deletion. This item was then further examined in the following analyses and the benefits of its inclusion or removal from the scale were determined.

Finally, standard deviations ranged from 2.75 (*M* = -1.40) for item NA16, "Make fun of me," to 5.32 (*M* = 7.22) for item NA1, "Not mind." A smaller standard deviation implied that there was a consensus about attitudes toward the attribute, whereas a larger

Table 18

Means and Standard Deviations of 43 Attitude Items

	M	*SD*		*M*	*SD*		*M*	*SD*
SA1	6.21	4.44	SA25	-3.23	4.98	NA1	7.22	5.32
SA2	8.82	4.14	SA29	-2.08	5.23	NA2	7.05	4.92
SA3	8.12	4.05	SA31	10.50	3.74	NA3	-2.43	3.35
SA4	-1.07	4.34	SA32	-2.35	3.81	NA4	-2.98	3.80
SA5	.13	5.30	SA33	9.68	3.79	NA5	-1.73	3.81
SA9	7.67	4.11	SA34	-3.27	3.97	NA7	8.85	4.88
SA10	7.59	4.06	SA35	10.14	4.01	NA8	4.39	4.72
SA13	-2.36	5.26	SA36	9.78	4.30	NA9	-2.89	3.71
SA14	5.03	5.09	SA37	-1.85	3.98	NA10	-2.50	3.55
SA16	7.73	4.12	SA38	-3.32	3.13	NA11	6.15	4.88
SA18	7.33	4.01	SA39	-2.78	2.87	NA12	6.23	6.76
SA19	6.81	3.96	SA41	-3.10	3.24	NA14	7.47	5.08
SA20	-2.80	3.09	SA43	-3.26	3.15	NA16	-1.40	2.75
SA21	-4.12	4.49	SA44	11.00	4.05			
SA23	-3.71	4.54	SA45	9.88	4.07			

standard deviation indicated that respondents' attitudes toward the attribute varied considerably.

Factor Structure of the Attitude Scale

Responses to the 43 items were subjected to an exploratory factor analysis using principal component factor extraction. As a rotation method, an oblique method was used because a review of the belief scale revealed correlations among belief factors and suggested possible correlations among attitude factors. The initial factor extraction of the attitude scale resulted in 9 factors with eigenvalues of 1.00 or greater.

Analysis of the percent of variance explained (Table 19) and the scree plot (Figure 3) revealed that a five- or six-factor solution would best represent the attitude scale of the BEACS. Based on these findings, additional factor analyses were conducted using five- and six-factor solutions. For each analysis, the percent of variance explained, number of items loading on a factor, and number of items highly loaded (>.40) on multiple factors were examined.

Five-Factor Model. Table 20 presents pattern and structure matrices from the initial EFA for the 43 attitude items. In order to determine whether to retain or remove items, both the structure and the pattern matrices were examined. As a result, it was found that all items that loaded on more than one factor on the pattern matrix also double loaded on the structure matrix. A review of the pattern matrix revealed that two items (SA31 & SA35) loaded on more than one factor (.40 or higher) and two items (SA4 & SA44) loaded lower than .40 on their primary factors. A review of the structure matrix revealed that 21 items loaded on more than one factor (.40 or higher) and one item (SA4) loaded lower than .40 on its primary factor. Based on the review of both matrices, the two items

Table 19

Initial Factor Extraction of the 43-Item Attitude Scale

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	9.99	23.24	23.24	9.99	23.24	23.24	8.17
2	5.41	12.58	35.82	5.41	12.58	35.82	4.14
3	2.84	6.60	42.42	2.84	6.60	42.42	3.57
4	2.06	4.80	47.21	2.06	4.80	47.21	3.90
5	2.04	4.75	51.97	2.04	4.75	51.97	6.30
6	1.66	3.85	55.82	1.66	3.85	55.82	5.90
7	1.13	2.62	58.44	1.13	2.62	58.44	1.57
8	1.06	2.46	60.90	1.06	2.46	60.90	1.35
9	1.01	2.35	63.25	1.01	2.35	63.25	1.85

Note. The 9 largest among the 43 initial components were only presented in this Table.

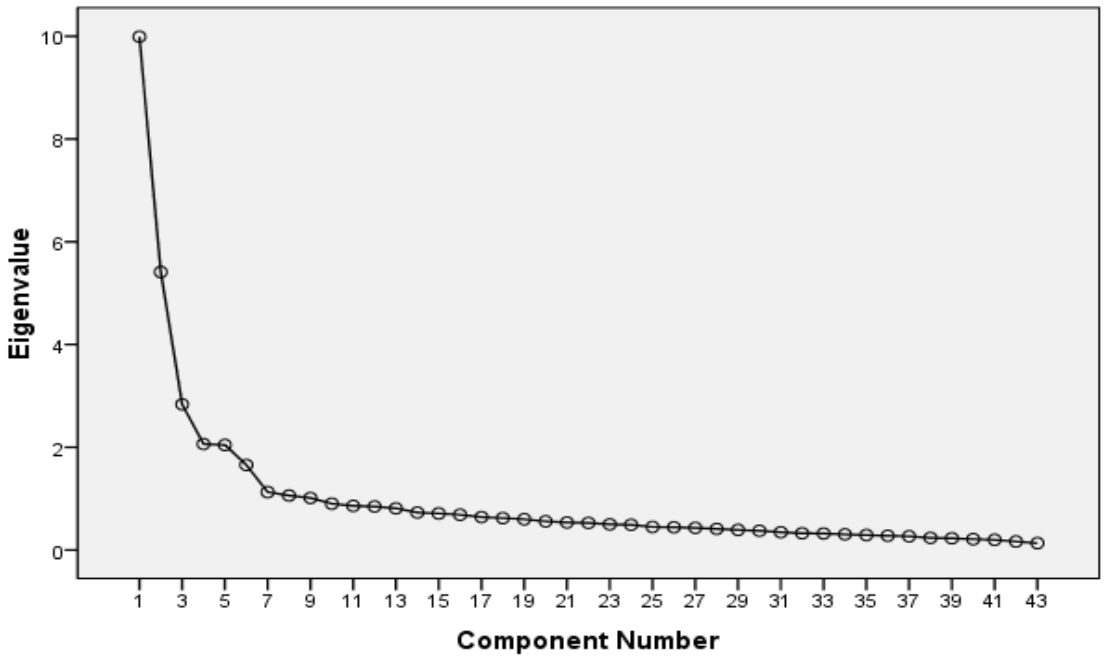

Figure 3. Scree Plot of the 43 Attitude Items of the BEACS

(SA31 & SA35) that double loaded and the one item (SA4) that loaded low in both matrices were eliminated.

The remaining 40 items were submitted to another factor analysis. As a result, it was found that the pattern matrix included five items (SA33, SA36, SA37, SA44 & SA45) that loaded lower than .40 on their primary factors, while the structure matrix had one item (SA37) that loaded lower than .40 on its primary factor. This single item (SA37) was deleted as it had low factor loadings in both matrices. Additionally, four items (SA33, SA36, SA44 & SA45) were also eliminated for three reasons. First, these items had low factor loadings in the pattern matrix. Second, they loaded .40 or higher on more than one factor in the structure matrix. Finally, including these items seemed to make it difficult to interpret the factors because they were grouped together with normative (*NA*) items.

After deleting these five items (SA33, 36, 37, 44 & 45), another factor analysis was conducted with the remaining 35 items. As a result, one item (SA20) loaded lower than .40 on its primary factor in the pattern matrix. Again, the remaining 34 items were submitted to another factor analysis. Finally, all 34 items loaded .40 or higher on one of the five factors, explaining 57.88% of the total variance (Table 21).

In order to investigate the characteristics of each factor, belief statements that corresponded to the attitude items for each factor were examined. As a result, it was found that the nine items (SA1, 2, 3, 9, 10, 14, 16, 18, & 19) loading on Factor 1 originated from the belief items that previously loaded on the Positive Outcome factor. Therefore, Factor 1 was labeled “Expectancy for Positive Outcome.” The six items loading on Factor 2 (SA32, 34, 38, 39, 41, & 43) originated from the belief items that loaded on the Negative Quality factor. Thus, Factor 2 was labeled “Tolerance for

Table 20

Pattern and Structure Matrices from the 1st EFA with Oblimin Rotation Using 5-Factor Solution for the 43 Attitude Items

	Pattern Matrix					Structure Matrix				
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
SA1	.77	-.02	-.04	-.04	.04	.74	.13	-.14	.05	-.33
SA2	.76	-.11	-.07	.01	-.10	.80	.05	-.20	.14	-.46
SA3	.79	-.11	-.04	-.00	-.06	.80	.05	-.17	.12	-.44
SA5	.42	.13	-.06	-.38	.00	.41	.29	-.04	-.36	-.18
SA9	.84	-.06	.03	.05	-.04	.85	.11	-.10	.16	-.45
SA10	.87	-.06	.04	.01	.07	.82	.11	-.09	.11	-.36
SA14	.61	.06	-.05	-.22	-.08	.64	.24	-.09	-.15	-.37
SA16	.83	-.10	.01	.10	-.04	.84	.05	-.13	.22	-.45
SA18	.76	.01	.06	.01	-.05	.78	.18	-.04	.09	-.43
SA19	.79	-.10	-.03	.01	.00	.78	.05	-.16	.13	-.38
SA4*	.10	.24	-.10	-.20	-.08	.18	.29	-.04	-.22	-.15
SA20	-.13	.50	.03	-.10	.10	-.09	.48	.16	-.25	.10
SA32	-.07	.47	.08	-.04	.05	-.01	.47	.19	-.16	.01
SA34	-.03	.68	.04	.04	.08	.04	.42	.11	-.15	-.01
SA37	-.02	.41	.02	-.05	.04	.12	.71	.13	-.20	-.07
SA38	-.00	.72	-.02	-.03	.04	.21	.72	.04	-.07	-.12
SA39	.05	.75	-.10	.08	.04	.07	.67	.18	-.13	-.03
SA41	-.10	.66	.04	.03	-.09	.08	.66	.18	-.13	-.16
SA43	-.01	.69	.04	.06	-.01	.14	.68	.17	-.10	-.13
NA3	-.03	-.02	.75	.03	-.13	-.07	.13	.74	-.05	-.11
NA4	.04	-.06	.72	-.09	.10	-.12	.10	.71	-.18	.10
NA5	.09	-.02	.61	.06	.21	-.09	.07	.59	-.03	.17
NA9	-.04	.00	.76	-.05	-.03	-.14	.16	.77	-.15	.00
NA10	-.03	.04	.78	-.01	-.04	-.11	.20	.80	-.12	-.02
NA16	-.06	.10	.59	.01	-.19	-.02	.23	.62	-.07	-.17
SA13	.22	.24	.04	-.59	-.06	.22	.44	.14	-.62	-.14
SA21	-.01	.23	.18	-.55	-.10	.00	.41	.30	-.61	-.07
SA23	.01	.28	.16	-.54	-.21	.09	.47	.28	-.60	-.19
SA25	.08	.34	.03	-.56	-.13	.15	.51	.16	-.61	-.16
SA29	.24	.33	.11	-.46	-.01	.25	.50	.20	-.52	-.13
SA31**	.42	.19	-.00	.42	-.19	.60	.21	-.08	.45	-.49
SA33	.28	.19	-.04	.51	-.21	.48	.16	-.11	.53	-.44
SA35**	.42	.21	-.03	.48	-.18	.61	.21	-.11	.50	-.48
SA36	.19	.27	.01	.49	-.25	.42	.24	-.03	.48	-.44
SA44*	.35	.17	.03	.39	-.10	.48	.18	-.04	.40	-.35
SA45	.22	.19	-.04	.46	-.24	.43	.16	-.10	.47	-.44
NA1	.01	-.01	.02	.02	-.78	.39	.12	.01	.11	-.79
NA2	.14	-.01	-.01	.03	-.73	.51	.13	-.04	.14	-.80
NA7	-.05	-.05	-.03	.02	-.90	.40	.07	-.04	.14	-.87

NA8	.00	-.14	.03	-.03	-.63	.28	-.02	.00	.08	-.61
NA11	.01	-.05	.09	-.02	-.85	.41	.12	.07	.09	-.84
NA14	-.05	.00	-.07	-.06	-.60	.26	.09	-.07	.02	-.57
NA12	.06	-.05	.03	.03	-.83	.46	.10	.00	.14	-.86
Total percent of variance explained = 51.97 %										
Eigenvalues =						9.99	5.41	2.84	2.06	2.04
(% of variance explained.) =						(23.24)	(12.58)	(6.60)	(4.80)	(4.75)

Note. Underlines indicate loadings .40 or higher. Items with a single asterisk loaded lower than .40 on their primary factors in both matrices. Items with double asterisks double loaded .40 or higher in both matrices.

Table 21

Pattern and Structure Matrices from the 4th EFA with Oblimin Rotation Using 5-Factor Solution for the 34 Attitude Items

	Pattern Matrix					Structure Matrix				
	Factor 1 EPO	Factor 2 TNQ	Factor 3 EPN	Factor 4 TNN	Factor 5 TNO	Factor 1 EPO	Factor 2 TNQ	Factor 3 EPN	Factor 4 TNN	Factor 5 TNO
SA1	.75	.02	-.02	-.04	-.06	.76	.09	.31	-.15	-.15
SA2	.76	-.03	.12	-.06	.03	.82	.03	.45	-.20	-.06
SA3	.79	.02	.08	-.03	.05	.83	.07	.43	-.17	-.06
SA9	.85	.03	.06	.04	.05	.86	.09	.42	-.10	-.08
SA10	.86	.02	-.04	.04	.03	.83	.09	.33	-.10	-.09
SA14	.53	.01	.07	-.08	-.33	.61	.17	.33	-.11	-.40
SA16	.85	-.01	.07	.03	.11	.86	.04	.43	-.14	-.01
SA18	.76	.03	.07	.07	-.05	.78	.13	.41	-.05	-.17
SA19	.79	.00	.01	-.01	.03	.79	.06	.36	-.15	-.07
SA32	-.08	.45	-.06	.05	-.13	-.06	.50	-.04	.17	-.28
SA34	.01	.73	-.06	.04	.02	.04	.73	.01	.17	-.24
SA38	.01	.72	-.05	-.02	-.09	.07	.75	.04	.13	-.34
SA39	.10	.79	-.02	-.09	.02	.17	.77	.10	.04	-.26
SA41	-.04	.72	.09	.03	.01	.05	.73	.14	.17	-.25
SA43	.05	.75	.02	.04	.05	.11	.75	.11	.16	-.23
NA1	.05	.01	.77	.01	-.01	.39	.09	.79	-.01	-.09
NA2	.19	.05	.71	-.01	.02	.50	.13	.79	-.04	-.08
NA7	-.01	-.03	.88	-.04	-.01	.38	.05	.88	-.05	-.07
NA8	.02	-.14	.62	.03	-.04	.27	-.06	.61	.00	-.05
NA11	.05	-.00	.83	.09	-.01	.40	.10	.85	.07	-.10
NA12	-.03	.06	.58	-.08	-.04	.25	.11	.58	-.07	-.09
NA14	.11	.01	.80	.03	.01	.45	.10	.85	-.00	-.08
NA3	-.01	-.01	.13	.76	.04	-.09	.14	.11	.75	-.11
NA4	.01	-.06	-.12	.71	-.10	-.15	.10	-.12	.71	-.20
NA5	.09	-.08	-.20	.60	-.03	-.10	.04	-.18	.58	-.11
NA9	-.05	.02	.02	.73	-.06	-.16	.18	-.01	.76	-.19
NA10	-.02	.09	.04	.78	.01	-.13	.23	.02	.80	-.16
NA16	-.03	.17	.19	.60	.06	-.04	.28	.18	.62	-.12
SA5	.30	-.01	-.04	-.07	-.50	.36	.18	.14	-.04	-.52
SA13	.04	-.02	-.01	-.02	-.80	.14	.26	.07	.11	-.80
SA21	-.14	-.01	.02	.14	-.72	-.07	.26	.01	.29	-.72
SA23	-.12	.06	.12	.11	-.71	.01	.33	.13	.26	-.74
SA25	-.09	.08	.07	-.04	-.77	.05	.34	.10	.13	-.79
SA29	.09	.14	-.04	.04	-.65	.16	.38	.06	.16	-.71
Total percent of variance explained = 57.88 %										
Eigenvalues (% of variance explained.) =						8.13 (23.91)	4.97 (14.62)	2.72 (8.00)	2.00 (5.89)	1.85 (5.45)

Note. Underlines indicate loadings .40 or higher. EPO = Expectancy for Positive Outcome; TNQ

= Tolerance for Negative Quality; EPN = Expectancy for Positive Norm; TNN = Tolerance for Negative Norm; TNO = Tolerance for Negative Outcome

Negative Quality."

Factors 1, 2 and 5 consisted entirely of the *SA* items, and the NA items loaded on Factors 3 and 4. Interestingly, the *NA* items split into two factors (Factor 3 & 4), whereas all the *nb* items on the 55-item scale had loaded on a single factor, Social Norm. Review of the content of the items revealed that Factor 3 referred to positive reactions from other people (items NA1, 2, 7, 8, 11, 12, & 14), while Factor 4 reflected negative reactions (items NA3, 4, 5, 9, 10, & 16). Therefore, Factors 3 and 4 were labeled "Expectancy for Positive Norm" and "Tolerance for Negative Norm," respectively. Finally, all six items loading on Factor 5 (items SA5, 13, 21, 23, 25, & 29) originated from the belief items that previously loaded on the Negative Outcome factor. Thus, Factor 5 was labeled "Tolerance for Negative Outcome."

Six-Factor Model. The initial 43 attitude items were submitted to an EFA with Oblimin rotation using a six-factor solution. Table 22 shows both the pattern and the structure matrices. A review of the pattern and structure matrices revealed that two items (SA4 & SA37) loaded lower than .40 on their primary factors in both matrices. Another item, SA20, also loaded low in the pattern matrix.

After deleting the three items (SA4, SA20, & SA37), the remaining 40 items were submitted to another factor analysis. Finally, all 40 items loaded .40 or higher on one of the six factors, explaining 58.67% of the total variance (see Table 23). Review of the items for each factor revealed that the 41-item attitude scale consisted of the 35 items from the five-factor model as well as five additional items constituting the sixth factor. The structures of Factors 1 through 5 for this six-factor model were identical to those for the five-factor model. The six items on Factor 6 (SA31, 33, 35, 36, 44, & 45) originated

Table 22

Pattern and Structure Matrices from the 1st EFA with Oblimin Rotation Using 6-Factor Solution for the 43 Attitude Items

	Pattern Matrix						Structure Matrix					
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
SA1	.72	.02	-.04	-.08	.03	.04	.74	.09	-.14	-.15	-.30	.36
SA2	.75	-.01	-.07	.01	-.12	.03	.82	.02	-.19	-.05	-.44	.40
SA3	.80	.02	-.03	.03	-.09	-.02	.83	.04	-.16	-.05	-.42	.37
SA9	.81	.04	.04	.03	-.05	.07	.86	.09	-.10	-.07	-.42	.44
SA10	.86	.05	.04	.03	.04	.01	.84	.10	-.09	-.08	-.33	.37
SA14	.53	-.01	-.06	-.33	-.06	.04	.61	.15	-.10	-.37	-.31	.31
SA16	.80	-.00	.02	.08	-.05	.10	.85	.03	-.13	-.00	-.42	.46
SA18	.70	.03	.07	-.08	-.04	.12	.77	.12	-.04	-.17	-.38	.44
SA19	.77	-.01	-.02	.01	-.02	.03	.79	.03	-.15	-.06	-.35	.38
SA20	-.20	.32	.02	-.28	.14	.12	-.17	.43	.15	-.39	.15	.01
SA32	-.06	.43	.07	-.09	.04	.01	-.05	.48	.17	-.26	.04	.00
SA34	.06	.75	.04	.06	.03	-.06	.05	.73	.16	-.24	-.01	.01
SA37*	-.07	.30	.01	-.19	.07	.11	-.02	.38	.10	-.30	.03	.09
SA38	.04	.71	-.02	-.08	.02	-.02	.07	.74	.11	-.35	-.04	.06
SA39	.09	.77	-.10	.02	.01	.05	.16	.76	.02	-.27	-.09	.16
SA41	-.02	.71	.03	.03	-.12	-.04	.05	.71	.16	-.26	-.14	.05
SA43	.07	.75	.03	.06	-.05	-.02	.11	.74	.15	-.25	-.11	.09
NA3	-.03	.01	.74	.02	-.12	.02	-.09	.14	.74	-.10	-.11	-.01
NA4	.01	-.09	.71	-.12	.11	-.02	-.15	.08	.71	-.19	.11	-.11
NA5	.02	-.08	.61	-.04	.24	.14	-.12	.04	.59	-.09	.20	.00
NA9	-.03	.03	.75	-.04	-.04	-.05	-.15	.17	.77	-.15	-.00	-.11
NA10	.01	.10	.78	.03	-.05	-.07	-.12	.23	.80	-.12	-.03	-.10
NA16	.00	.18	.59	.06	-.20	-.06	-.03	.27	.61	-.10	-.19	-.03
SA4*	.00	.06	-.11	-.37	-.03	.11	.11	.20	-.05	-.39	-.09	.14
SA5	.32	-.02	-.07	-.51	.03	-.03	.36	.18	-.05	-.52	-.12	.12
SA13	.08	-.04	.02	-.79	.00	-.05	.13	.28	.12	-.79	-.05	.01
SA21	-.12	-.02	.16	-.72	-.04	-.07	-.09	.27	.28	-.72	.00	-.10
SA23	-.09	.04	.13	-.71	-.15	-.06	-.01	.34	.26	-.74	-.12	-.03
SA25	-.03	.08	.01	-.74	-.08	-.06	.05	.37	.14	-.78	-.08	-.01
SA29	.14	.13	.09	-.62	.02	-.05	.16	.39	.19	-.70	-.06	.03
NA1	.03	.03	.02	-.02	-.74	.08	.37	.09	.01	-.07	-.78	.35
NA2	.15	.03	-.01	-.02	-.69	.11	.49	.10	-.04	-.08	-.78	.41
NA7	-.04	-.03	-.03	-.04	-.84	.12	.37	.04	-.04	-.06	-.87	.39
NA8	.01	-.12	.03	-.04	-.60	.04	.27	-.05	.01	-.03	-.61	.24
NA11	.04	.01	.09	-.04	-.81	.05	.39	.09	.08	-.10	-.85	.34

NA12	.01	.07	-.08	-.02	-.59	-.05	.26	.10	-.06	-.07	-.59	.17
NA14	.07	-.01	.03	-.02	-.79	.10	.44	.06	.00	-.07	-.85	.41
SA31	.22	.05	.01	.06	-.08	.62	.53	.10	-.08	-.01	-.39	.75
SA33	.01	-.05	-.03	.03	-.05	.80	.38	.00	-.11	.02	-.33	.82
SA35	.17	.01	-.02	.03	-.03	.75	.51	.07	-.11	-.01	-.36	.84
SA36	-.08	.00	.02	-.01	-.08	.81	.30	.08	-.03	-.04	-.33	.80
SA44	.20	.07	.04	.10	-.02	.51	.42	.10	-.04	.03	-.28	.61
SA45	-.04	-.05	-.03	-.01	-.09	.76	.33	.01	-.10	-.01	-.33	.77
% of total variance explained = 55.82 %												
Initial Eigenvalues (% of Variance) =							13.31 (26.11)	6.22 (12.19)	3.09 (6.06)	2.30 (4.52)	2.14 (4.20)	1.79 (3.51)

Note. Loadings of .40 or higher were indicated by underlines. Items marked with a single asterisk loaded lower than .40 on their primary factors.

Table 23

Pattern and Structure Matrices from the 2nd EFA with Oblimin Rotation Using 6-Factor Solution for the 40 Attitude Items

	Pattern Matrix						Structure Matrix					
	Factor 1 EPO	Factor 2 TNO	Factor 3 TNN	Factor 4 EPN	Factor 5 TNQ	Factor 6 EPQ	Factor 1 EPO	Factor 2 TNO	Factor 3 TNN	Factor 4 EPN	Factor 5 TNQ	Factor 6 EPQ
SA1	.72	.08	-.04	.02	-.01	.03	.75	.16	-.15	-.30	-.10	.37
SA2	.76	-.02	-.06	-.12	.02	.01	.82	.06	-.19	-.43	-.05	.42
SA3	.81	-.04	-.03	-.10	.00	-.05	.83	.06	-.16	-.42	-.07	.38
SA9	.82	-.04	.05	-.05	-.02	.05	.86	.08	-.09	-.41	-.11	.46
SA10	.87	-.04	.05	.03	-.04	-.02	.84	.09	-.09	-.33	-.12	.39
SA14	.50	.35	-.08	-.05	.00	.07	.61	.40	-.10	-.31	-.17	.33
SA16	.81	-.09	.03	-.06	.02	.08	.85	.01	-.13	-.41	-.05	.48
SA18	.69	.08	.07	-.04	-.02	.12	.77	.18	-.04	-.38	-.14	.46
SA19	.78	-.01	-.02	-.02	.02	.02	.79	.07	-.15	-.34	-.06	.40
SA5	.30	.50	-.09	.03	.00	-.01	.36	.52	-.05	-.13	-.18	.13
SA13	.04	.80	-.02	.01	.01	.00	.13	.80	.11	-.06	-.27	.01
SA21	-.14	.72	.13	-.03	-.00	-.04	-.08	.73	.28	-.01	-.26	-.11
SA23	-.11	.71	.11	-.14	-.05	-.04	.01	.74	.26	-.14	-.32	-.05
SA25	-.07	.76	-.03	-.07	-.10	-.01	.06	.78	.13	-.10	-.35	-.03
SA29	.10	.65	.06	.04	-.14	.00	.17	.72	.18	-.06	-.38	.03
NA3	-.00	-.04	.76	-.12	.00	-.01	-.09	.10	.75	-.11	-.13	-.02
NA4	.01	.12	.70	.11	.09	-.02	-.15	.21	.71	.12	-.07	-.11
NA5	.00	.07	.59	.25	.08	.15	-.13	.12	.58	.20	-.03	.01
NA9	-.03	.06	.74	-.03	-.02	-.05	-.16	.19	.77	.00	-.17	-.11
NA10	.02	-.03	.78	-.05	-.09	-.08	-.12	.15	.80	-.03	-.22	-.10
NA16	.02	-.07	.60	-.20	-.17	-.08	-.03	.11	.62	-.18	-.27	-.03
NA1	.03	.01	.02	-.74	-.03	.08	.37	.08	.02	-.78	-.12	.37
NA2	.15	.01	-.01	-.69	-.03	.10	.49	.09	-.04	-.79	-.13	.43
NA7	-.03	.03	-.03	-.84	.04	.11	.37	.06	-.04	-.87	-.06	.41
NA8	.02	.03	.04	-.61	.13	.03	.27	.04	.01	-.62	.04	.26
NA11	.05	.02	.09	-.82	.00	.03	.39	.10	.08	-.85	-.11	.36
NA12	.01	.03	-.08	-.58	-.06	-.04	.26	.08	-.06	-.58	-.12	.19
NA14	.08	.01	.03	-.78	.01	.10	.45	.07	.01	-.85	-.09	.42
SA32	-.10	.14	.05	.07	-.44	.05	-.05	.28	.17	.03	-.48	.00
SA34	.02	-.02	.04	.06	-.75	-.03	.05	.24	.17	-.02	-.75	.00
SA38	.01	.10	-.03	.04	-.71	.01	.08	.34	.12	-.04	-.74	.04
SA39	.07	.00	-.10	.04	-.77	.07	.18	.26	.03	-.10	-.76	.14
SA41	-.04	.00	.03	-.10	-.71	-.02	.06	.25	.17	-.15	-.72	.04
SA43	.05	-.04	.04	-.03	-.74	-.01	.12	.23	.16	-.12	-.74	.07

SA31	.21	-.06	.01	-.08	-.06	.62	.54	-.02	-.07	-.40	-.11	.75
SA33	-.02	-.01	-.04	-.04	.04	.82	.39	-.04	-.10	-.33	-.00	.82
SA35	.14	-.02	-.03	-.02	-.02	.77	.52	-.01	-.10	-.36	-.07	.85
SA36	-.12	.03	.01	-.06	-.03	.84	.31	.02	-.02	-.33	-.08	.80
SA44	.19	-.09	.04	-.01	-.08	.52	.43	-.04	-.03	-.28	-.10	.61
SA45	-.07	.01	-.04	-.06	.03	.78	.34	-.02	-.09	-.33	-.02	.77
% of total variance explained = 58.67 %												
Initial Eigenvalues (% of Variance) =							9.94 (24.84)	5.07 (12.67)	2.78 (6.96)	2.05 (5.12)	2.00 (5.02)	1.63 (4.07)

Note. Loadings of .40 or higher were indicated by underlines. EPO = Expectancy for Positive; TNO = Tolerance for Negative Outcome; Outcome; TNN = Tolerance for Negative Norm; EPN = Expectancy for Positive Norm; TNQ = Tolerance for Negative Quality; EPQ = Expectancy for Positive Quality.

from the belief items that had loaded on the Positive Quality factor. Therefore, Factor 6 was labeled "Expectancy for Positive Quality."

Correlations among Responses to Factors

Unlike analyses for the belief scale, negatively worded items on the attitude scale were not reversely coded because the attitude items were already weighed (either positively or negatively) using the evaluation scores (from -3 to +3). Therefore, higher scores always represented more positive attitudes for either positively or negatively sentenced items. Thus, it was hypothesized that responses to all the factors would be correlated in a positive direction. Table 24 represents the correlation matrix among the six factors using Pearson's *r* correlation analysis. In addition, the component correlation matrix based on the six-factor solution by Oblimin rotation method is also reported in Table 25.

Internal Reliability of the Attitude Scale

Factorial validity of these two models (six-factor model with 41 items vs. five-factor model with 36 items) will be discussed in Study 3. In the current study, items from the two models were examined to test the internal consistency of each model. Results indicated that the Cronbach's alpha of the total scale was .88 and .90 for the 34-item (5-factor) and 40-item (6-factor) models, respectively. A Cronbach's alpha was also computed for each subscale.

As presented in Table 26, the item-to-factor correlations ranged from .40 (SA32 from the Tolerance for Negative Quality factor) to .81 (SA9 & SA16 from the Expectancy for Positive Outcome factor). Cronbach's alphas of the Expectancy for Positive Outcome, Positive Quality and Positive Norm were .93, .86 and .88, respectively.

Table 24

Pearson's r Correlation Matrix for the Attitude Scale

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	(Factor 6)
Factor 1: Expectancy for Positive Outcome						
Factor 2: Tolerance for Negative Outcome	.20 **					
Factor 3: Tolerance for Negative Norm	-.14 **	.23 **				
Factor 4: Expectancy for Positive Norm	.52 **	.14 **	.00 *			
Factor 5: Tolerance for Negative Quality	.12 **	.42 **	.24 **	.10		
(Factor 6: Expectancy for Positive Quality)	.57 **	.00	-.11 *	.48 **	.11 *	

Note. Factor 6 was not included in the 34-item attitude scale (5-factor model).

** $p = .01$. * $p = .05$.

Table 25

Component Correlation Matrix based on the 6-Factor Solution by Oblimin Rotation for the Attitude Scale

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	(Factor 6)
Factor 1: Expectancy for Positive Outcome						
Factor 2: Tolerance for Negative Outcome	.12					
Factor 3: Tolerance for Negative Norm	-.16	.17				
Factor 4: Expectancy for Positive Norm	-.42	-.07	.00			
Factor 5: Tolerance for Negative Quality	-.10	-.35	-.18	.11		
(Factor 6: Expectancy for Positive Quality)	.48	-.02	-.07	-.37	-.06	

Note. Factor 6 was not included in the 34-item attitude scale (5-factor model).

Table 26

Item-to-Factor Statistics of the BEACS

	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's α If Item Deleted
	Factor 1: Expectancy for Positive Outcome (α = .93)		
SA1	.69	.49	.92
SA2	.78	.63	.91
SA3	.78	.65	.91
SA9	.81	.69	.91
SA10	.74	.62	.92
SA14*	.55	.31	.93*
SA16	.81	.67	.91
SA18	.73	.55	.92
SA19	.72	.54	.92
	Factor 2: Tolerance for Negative Outcome (α =.82)		
SA5*	.41	.21	.83*
SA13	.67	.49	.76
SA21	.57	.44	.79
SA23	.60	.49	.78
SA25	.65	.47	.77
SA29	.59	.35	.78
	Factor 3: Tolerance for Negative Norm (α =.80)		
NA3	.59	.37	.76
NA4	.59	.39	.76
NA5*	.45	.24	.80*
NA9	.62	.45	.76
NA10	.65	.49	.75
NA16	.47	.28	.79
	Factor 4: Expectancy for Positive Norm (α =.88)		
NA1	.70	.51	.86
NA2	.71	.54	.85
NA7	.80	.66	.84
NA8*	.49	.29	.88*
NA11	.77	.68	.85
NA12*	.49	.25	.89*
NA14	.77	.72	.85
	Factor 5: Tolerance for Negative Quality (α =.80)		
SA32*	.40	.20	.81*
SA34	.57	.34	.76
SA38	.61	.45	.75
SA39	.61	.48	.76
SA41	.58	.36	.76
SA43	.59	.40	.76
	Factor 6: Expectancy for Positive Quality (α =.86)		
SA31	.68	.49	.84
SA33	.71	.53	.83
SA35	.76	.59	.82
SA36	.63	.46	.84
SA44*	.54	.33	.86*
SA45	.64	.44	.84

Note. Factor 6 was not included in the 34-item (5-factor) model, as marked by Italics. Items with an asterisk were considered for deletion as they do not appear to contribute to any factor. This was evidenced by increased or consistent Cronbach's alphas when the items were deleted.

Cronbach's alphas of the Tolerance for Negative Outcome, Negative Quality, and Negative Norm were .82, .80, and .80, respectively. All items except seven (SA5, SA13, SA32, SA44, NA5, NA8, & NA12) appeared to contribute significantly to the subscale, evidenced by the decreased Cronbach's alpha when an item was deleted. These seven items will be further examined in Study 3.

Summary

Study 2 involved exploration of the factor structure of the BEACS. The initial 61 pairs of the belief and evaluation items of the BEACS were given to 497 undergraduate and graduate students. Before conducting an exploratory factor analysis, means and standard deviations of all belief and evaluation items were calculated. A review of the belief items revealed the six items with the smallest standard deviations ($SD < .80$) related to a respondent's view of their counselor as having positive qualities. This finding implies that these items may not be able to differentiate between respondents who had more positive attitudes and those who held less positive attitudes toward counseling. Ultimately, this finding suggests that regardless of their attitudes toward counseling, respondents believed that counselors possess positive qualities. Therefore, the ability of these items to measure attitudes toward counseling was questioned.

An exploratory factor analysis was conducted in two phases. The first phase analyzed responses to the 61 items of the belief scale. The purpose of this first phase was to select the most valid belief items and to explore latent variables underlying college students' belief systems associated with seeking psychological services. Two methods were employed to explore factors connected to the belief scale – an orthogonal (Varimax) rotation and oblique (Oblimin) rotation. Utilizing the Varimax method, 55 items were

selected for inclusion in the BEACS scale, while 43 items were identified using the Oblimin rotaion. In both cases, five factors were extracted including Positive Outcome, Negative Outcome, Positive Quality, Negative Quality, and Social Norm. The Social Norm factor was comprised of *nb* items, while the other four factors consisted solely of *sb* items. Cronbach's alphas for the total scale and the subscales were high (> .82) in both models. After a close review of both versions of the belief scale, the 43-item version was selected for further analyses as it appeared to have several advantages over the 55-item scale (e.g., lower correlations among responses to the factors, a larger percentage of total variance explained by the factors, and shorter length).

The second phase of the scale development consisted of a factor analysis of the attitude items. This analysis was produced by multiplying corresponding belief and evaluation items. The purpose of this phase was to explore the underlying construct that the BEACS aims to measure. The 43 attitude item scores were subjected to an exploratory factor analysis with an oblique rotation method. Analysis of the percent of variance explained and the scree plot revealed that a five or six factor solution would best represent the attitude scale of the BEACS. Based on these findings, additional factor analyses were conducted using five and six factor solutions. The five-factor model included 34 items and explained 58% of the total variance. The five factors were named Expectancy for Positive Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, Tolerance for Negative Norm, and Tolerance for Negative Outcome. The two factors involving norms (Expectancy for Positive Norm and Tolerance for Negative Norm) were comprised of NA items and the other three factors consisted of SA items. The six-factor model included 40 items and explained 59% of the total variance. Review

of the items for each factor revealed that the 40-item attitude scale consisted of the original 34 items from the 5-factor model as well as 6 additional items that constituted the sixth factor. The structures of factors 1 through 5 for the 6-factor model were identical to those for the 5-factor model. The sixth factor was labeled Expectancy for Positive Quality.

At this point in the scale development, a selection between the 5- or 6-factor models for the BEACS would have been premature. Both models had many similarities in their factor structures, percentage of the total variance explained, and Cronbach's alphas. Nonetheless, because the sixth factor consisted solely of items associated with counselors' positive qualities (which were found to be questionable in their ability to measure attitudes toward seeking counseling), it can be hypothesized that the 5-factor model would be a better fit than the 6-factor model. Still, in order to ascertain the most appropriate model for the BEACS, both 5- and 6-factor models were tested in a third study (Study 3) using confirmatory factor analyses.

CHAPTER V

STUDY 3

Study 3 involved further assessment of the BEACS's psychometric properties using an independent sample of participants. The purpose of Study 3 was to evaluate the BEACS's factorial validity, concurrent validity, and its ability to discriminate between men and women and persons with and without prior counseling experiences.

Specifically, four hypotheses were tested: (1) The BEACS would be best represented by five factors; (2) Women and counseling users, and individuals who have thought of seeking counseling would have higher scores on the BEACS than men, nonusers, and people who have not thought of seeking counseling; (3) Responses to the factors linked to the BEACS will be moderately correlated with responses to the factors of the BAPS; and (4) the five factors of the BEACS will predict in a linear combination the willingness to seek counseling as measured by the Intent factor of the BAPS.

For Hypothesis 1, the two models discovered in Study 2 were tested. The factorial stability of the BEACS was evaluated by submitting the 34 (five-factor model) and 40 (six-factor model) attitude items of the BEACS to confirmatory factor analyses. In addition, an alternative three-factor model that combined positive and negative factors of the six-factor model was also tested. To estimate the fit of the data to each of the three models, several fit indices were used: χ^2, the goodness-of-fit index (GFI), adjusted goodness-of fit index (AGFI), comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the single-sample expected cross-validation index (ECVI).

For Hypothesis 2, multivariate analysis of variance (MANOVA) was computed to examine the main and interaction effects of gender, prior counseling, and prior consideration of counseling on the BEACS scores. Higher scores were expected among women, users of services, and people who have thought of seeking counseling as opposed to scores for men, non-users of services, and people who have not thought of seeking counseling.

To test Hypothesis 3, Ægisdóttir and Gerstein's (in press) 18-item BAPS was used. A moderately high correlation between responses to the BEACS and the BAPS was expected as both instruments strive to measure the same construct: *attitudes toward seeking psychological services*. Specifically, it was expected that responses to Expectancy for Positive Outcome, Tolerance for Negative Outcome, and Tolerance for Negative Quality would be correlated with responses to the Expertness factor linked to the BAPS because they all involve characteristics of psychological services and service providers. Moreover, it was expected that responses to Expectancy for Positive Norm and Tolerance for Negative Norm would be correlated to the Stigma Tolerance factor linked to the BAPS because they all reflect stigma associated with seeking psychological services.

Finally, to test Hypothesis 4, regression analyses were conducted using the five factors of the BEACS as predictors and the Intent factor linked to the BAPS as the criterion. It was hypothesized that the linear model would effectively explain Intent, and that each of the five factors would be an effective predictor of the criterion.

Method

Participants

Two hundred and eighty three additional undergraduate and graduate students at a Midwestern university participated in this study. The mean age of the students was 22.00 years (*SD* = 5.21). This sample consisted of 87 men and 196 women. Ninety one percent (*n* = 258) of the participants were Caucasian. Thirty two percent (*n* = 91) of the participants reported past use of psychological services, while 68 % (*n* = 192) indicated that they had never used the services. Table 1 shows the frequency distribution of the sample's demographics.

Participants were recruited from various courses in counseling, psychology, education, social studies, science, arts, health science, business, and liberal arts through an electronic advertisement. As an incentive for their participation, participants received a chance to be randomly selected for a $40 gift certificate at a book store. See Study 2 for detailed information about the recruiting procedure.

Instruments

The Beliefs and Evaluations About Counseling Scale (BEACS). See Study 1 and 2 for the development and psychometric properties of the 34- and 40-item BEACS.

The Beliefs About Psychological Services (BAPS; Ægisdóttir & Gerstein, in press) is an 18-item instrument developed to measure beliefs about seeking professional services for psychological concerns. Respondents rate the extent to which they agree or disagree with each item on a 6 point scale (from 1 to 6). Scores on the BAPS may range from 18 to 108 with higher scores reflecting more favorable attitudes toward seeking psychological services. Ægisdóttir and Gerstein (in press) reported internal consistency

reliability ranging from .85 to .90 for the total score and test-retest reliability of .87 over two weeks. The authors additionally reported that the BAPS consists of three factors labeled as Intent, Stigma Tolerance, and Expertness. See Chapter II for further information about the development and psychometric properties of the BAPS. In the present study, Cronbach's alpha coefficients for the 18 item BAPS, the Intent subscale, Stigma Tolerance subscale, and the Expertness subscale were .89, .84, .83, and .72, respectively.

Demographic Sheet. The demographic sheet used in Studies 1 and 2 was also employed for Study 3. Respondents were asked to indicate their age, sex, nationality, race or ethnicity, year in school, prior counseling experience, and prior thoughts of seeking counseling.

Procedure

Data were collected through INQSIT, an on-line survey tool. Using personal computers, participants individually accessed the website on which the following items were presented in the order listed: an informed consent document, demographic data form, the BEACS, and the BAPS. On average, the survey required approximately 30 minutes to complete. See Study 2 for further information about the data collection procedure.

Results

Construct Validity

A confirmatory factor analysis was performed to test the three models: the 5-factor model for the 34-item BEACS (Model A – hypothesized model), the 6-factor model for the 40-item BEACS (Model B), and the 3-factor model for the 40-item BEACS

(Model C). Models A and B were identified in Study 2 through exploratory factor analyses, whereas Model C was conceptually formed solely based on the content without a consideration of the positive or negative directions.

The AMOS (SPSS 16.0) program was used for this analysis. Model A consisted of five first-order latent variables representing the five subscales of the BEACS and one higher order factor representing the total BEACS. Model B included an additional sixth factor, thus consisted of six first-order latent variables and one higher order latent variable. Each of the latent variables of Model A and B had six to nine items. (see Figures 4 & 5). Finally, to test Model C, Expectancy for Positive Outcome and Tolerance for Negative Outcome were combined into a single factor, "Outcome." Also, Expectancy for Positive Quality and Tolerance for Negative Quality were merged into "Quality," while Expectancy for Positive Norm and Tolerance for Negative Norm constituted "Norm." Therefore, Model C consisted of three first-order latent variables and one higher order latent variable.

The sizes of the fit indices for the three models are reported in Table 27. As Table 27 reveals χ^2 for differences between the observed and the estimated correlation matrix was significant for all models. The χ^2 was the lowest for Model A (34 items with five factors), indicating the best fit. The GFI and the AGFI are measures of the relative amount of variances and covariances explained by the model, and generally fall between 0 and 1 (Marsh et al., 1988). Cole (1987) suggested .90 as a criterion value that indicates a better fit. Similarly, a comparative fit index (CFI) assesses the relative improvement in fit of the model compared with the null model (Kline, 2004). A value of 1.0 indicates a perfect fit. Regarding the RMSEA, values approaching 0.0 suggest a better fit, but

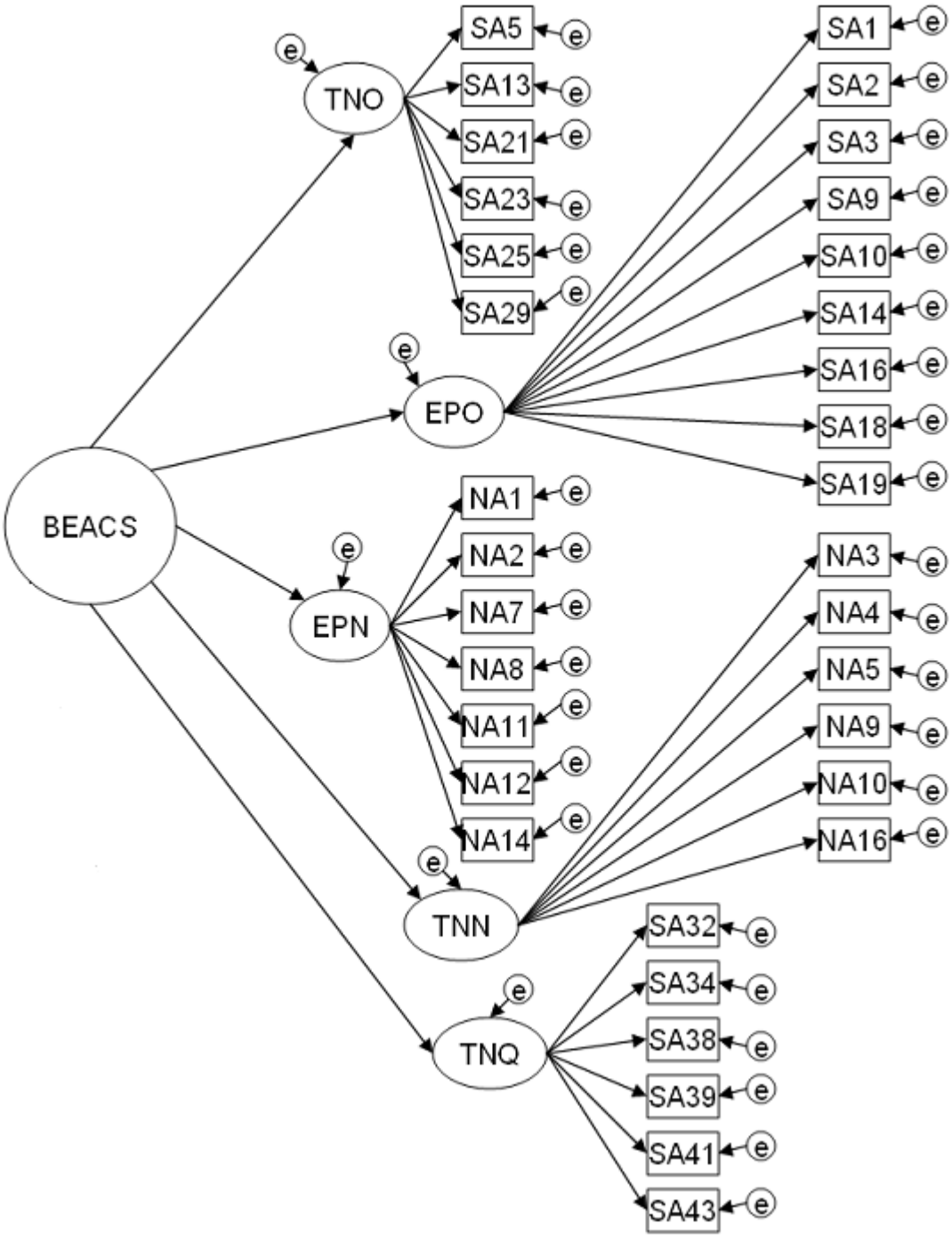

Figure 4. Model A (5 factors, 34 items) for the BEACS

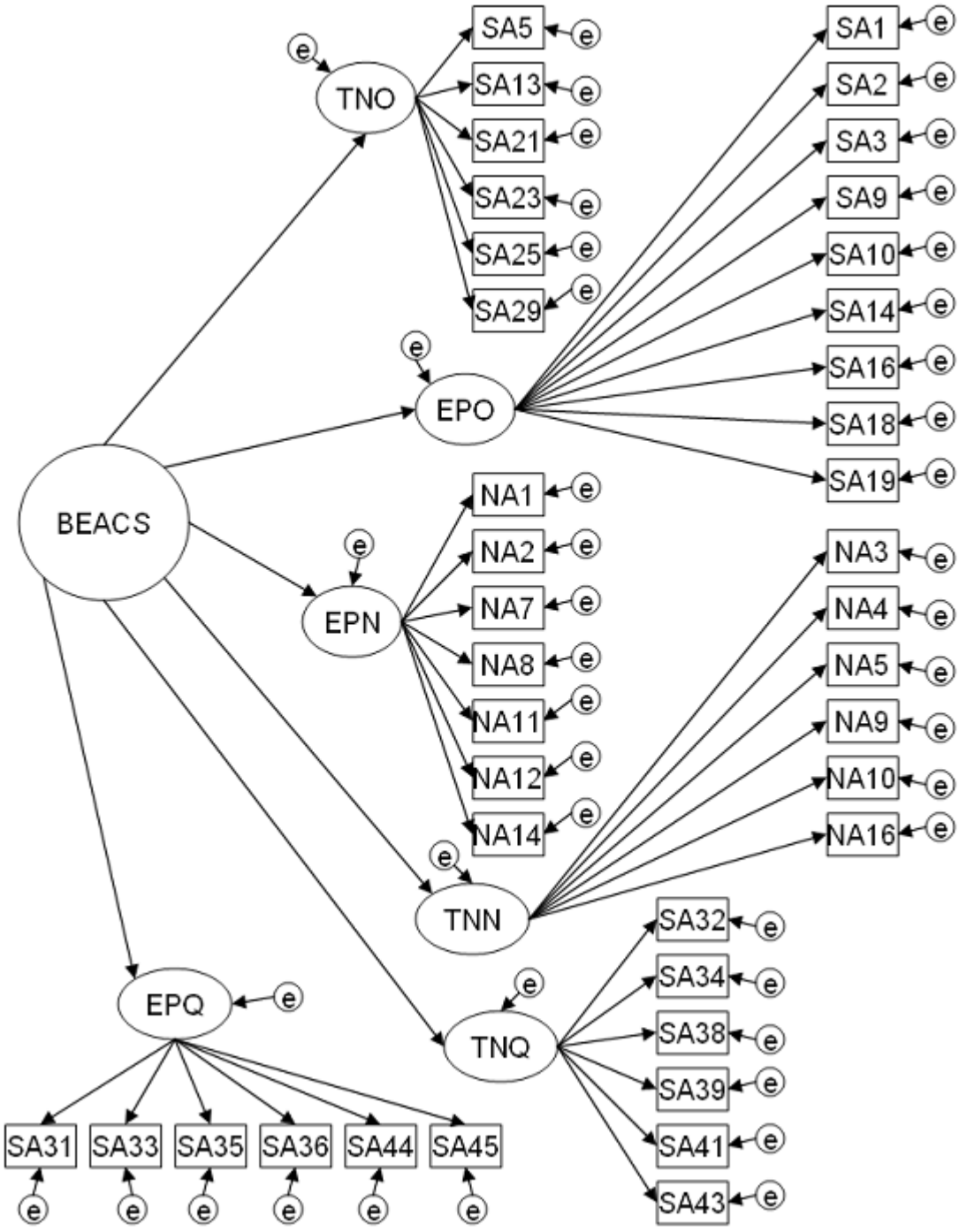

Figure 5. Model B (6 factors, 40 items) for the BEACS

Table 27

Summary of Fit Indices from CFA

Model	χ^2	*df*	GFI	AGFI	CFI	RMSEA	ECVI
Model C (40 items, 3 factors)	2513.36**	737	.60	.56	.66	.09	9.50
Model B (40 items, 6 factors)	1450.41**	734	.79	.76	.86	.06	5.75
Model A (34 items, 5 factors)	1111.90**	522	.80	.77	.86	.06	4.46
Model A′ (28 items, 5 factors)	774.72**	345	.83	.80	.88	.07	3.18

Note. CFI = Comparative Fit Index; RMSEA = Root Mean Square Error of Approximation; ECVI = Single Sample Expected Cross-Validation Index (lower value indicates increased model stability).

** $p < .001$.

Browne and Cudec (1993) suggested values ranging between .06 to .08 indicate an acceptable fit (Ægisdóttir & Gerstein, in press). Finally, a lower value of the ECVI indicates increased model stability (Browne & Cudeck, 1993).

Based on the χ^2, GFI, AGFI and ECVI values for each of the two models, Model C (3 factor solution with 40 items) seemed to be the poorest fit. This model was thus excluded from further consideration. Between Models A and B, the value of the χ^2 was smaller for Model A ($\chi^2 = 1111.90$, $df = 522$) than for Model B ($\chi^2 = 1450.41$, $df = 734$), but the difference was not significant ($\Delta\chi^2 = 348.51$, $\Delta df = 212$, $p = .20 > .05$). The GFI and AGFI values were also slightly higher for Model A (GFI = .80, AGFI = .77) than for Model B (GFI = .79, AGFI = .76), but the difference was not significant. The values of CFI (.86) and RMSEA (.06) were also consistent in both models, indicating that Model A might not be significantly better than Model B. In addition, the overall fit indices of Model A were only in moderate ranges (.77 – .86) although they were acceptable given that Cole (1987) proposed that .80 was the cut-off value for a good fit.

To improve the model fit, factor loadings were examined and less valid items were identified. As Table 28 reveals, two items, NA5 (.39) and NA8 (.38), loaded lower than .40 on their respective factors. Therefore, the appropriateness of retaining items NA5 and NA8 was questioned. In addition, analyses run in Study 2 suggested that these two items, along with four others (SA5, SA14, SA32, & NA12) did not appear to contribute to the scale. This was evidenced by increased or consistent Cronbach's alphas when these items were deleted (Table 26). Therefore, these 6 items were considered for deletion in the subsequent analyses and were ultimately removed. The remaining 28 items were subjected to another confirmatory factor analysis (Model A′). A summary of the fit

Table 28

CFA Factor Loadings

		Model B (40 items, 6 factors)	Model A (34 items, 5 factors)	Model A′ (28 items, 5 factors)
Expectancy for Positive Outcome	SA1	.61	.62	.62
	SA2	.77	.77	.75
	SA3	.75	.75	.76
	SA9	.83	.83	.83
	SA10	.75	.75	.74
	SA14	.77	.77	
	SA16	.82	.82	.83
	SA18	.70	.69	.71
	SA19	.65	.69	.65
Tolerance for Negative Outcome	SA5	.50	.40	
	SA13	.75	.75	.71
	SA21	.64	.65	.67
	SA23	.64	.66	.69
	SA25	.68	.68	.68
	SA29	.69	.69	.68
Tolerance for Negative Norm	NA3	.67	.68	.69
	NA4	.52	.53	.50
	NA5*	.39	.39	
	NA9	.67	.67	.67
	NA10	.78	.77	.77
	NA16	.59	.59	.60
Expectancy for Positive Norm	NA1	.75	.75	.74
	NA2	.77	.76	.75
	NA7	.84	.85	.85
	NA8*	.38	.38	
	NA11	.78	.78	.78
	NA12	.45	.45	
	NA14	.87	.87	.88
Tolerance for Negative Quality	SA32	.42	.42	
	SA34	.53	.53	.52
	SA38	.62	.62	.62
	SA39	.73	.72	.74
	SA41	.73	.74	.72
	SA43	.64	.64	.65
Expectancy for Positive Quality	SA31	.72		
	SA33	.67		
	SA35	.86		
	SA36	.73		
	SA44	.57		
	SA45	.76		

Note. * Indicates items which loaded lower than .40 on their respective factors in Models A and B.

indices and factor loadings for Model A′ is reported in Tables 27 and 28, respectively.

As shown in Table 27, fit indices were significantly improved in Model A′. For instance, the GFI, AGFI, and CFI of Model B' were .83, .80, and .88, respectively. ECVI also dropped from 4.46 (Model A) to 3.18 (Model A′), indicating increased stability of the model. The χ^2 value also dropped from 1111.90 (Model A) to 774.72 (Model A′), but the difference was not significant ($\Delta\chi^2 = 337.18$, $\Delta df = 117$, $p = .20 > .05$). Finally, as presented in Table 28, all 28 items of Model A′ loaded .40 or higher on their respective factors.

Item Analysis and Internal Reliability

The BEACS scale and the five factors that comprise the scale were submitted to an item analysis. Table 29 presents the item-to-factor and the item-to-total statistics for the 28 items of the attitude scale. Results indicated that the Cronbach's alpha for the total scale was .88. No item increased Cronbach's alpha when deleted. Further, all items but three (SA1, SA19, & NA9) contributed to the scale as evidenced by decreased Cronbach's alpha when an item was deleted. The item-to-total scale correlation ranged from .17 (NA9) to .61 (SA9) with squared multiple correlation ranging from .32 (NA4) to .72 (NA14).

Cronbach's alphas for Expectancy for Positive Outcome, Tolerance for Negative Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, and Tolerance for Negative Norm were .90, .81, .78, .90, & .77, respectively. All items appeared to contribute significantly to the subscale, evidenced by the decreased Cronbach's alpha when an item was deleted. The item-to-factor correlation for "Expectancy for Positive

Table 29

Item to Total Statistics for the 28-Item BEACS

	Subscale			Total Scale		
	Item-Factor Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted	Item-Total Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted[a]
Expectancy for Positive Outcome (Cronbach's α = .90)						
SA1	.59	.39	.90	.41	.42	.88
SA2	.71	.54	.89	.51	.62	.88
SA3	.73	.59	.89	.46	.62	.88
SA9	.79	.67	.88	.61	.71	.87
SA10	.68	.58	.89	.51	.61	.88
SA16	.78	.65	.88	.60	.68	.87
SA18	.66	.51	.89	.56	.56	.87
SA19	.63	.40	.90	.48	.48	.88
Tolerance for Negative Outcome (Cronbach's α = .81)						
SA13	.63	.42	.77	.36	.46	.88
SA21	.58	.43	.78	.31	.48	.88
SA23	.60	.44	.78	.36	.49	.88
SA25	.60	.38	.77	.35	.42	.88
SA29	.60	.38	.78	.40	.44	.88
Tolerance for Negative Quality (Cronbach's α = .78)						
SA34	.45	.26	.77	.33	.37	.88
SA38	.54	.31	.74	.40	.38	.88
SA39	.63	.41	.71	.51	.50	.88
SA41	.63	.40	.71	.48	.49	.88
SA43	.52	.32	.74	.49	.41	.88
Expectancy for Positive Norm (Cronbach's α = .90)						
NA1	.71	.54	.89	.50	.58	.88
NA2	.72	.54	.88	.60	.62	.87
NA7	.79	.65	.87	.53	.70	.88
NA11	.72	.56	.88	.55	.65	.87
NA14	.81	.69	.86	.54	.72	.87
Tolerance for Negative Norm (Cronbach's α = .77)						
NA3	.58	.38	.72	.35	.45	.88
NA4	.44	.21	.77	.21	.32	.88
NA9	.58	.37	.72	.17	.42	.88
NA10	.66	.45	.68	.20	.53	.88
NA16	.49	.32	.75	.31	.42	.88

[a]Cronbach's α for the total scale (28 attitude items) = .88

Outcome" ranged from .59 (SA1) to .78 (SA16), from .58 (SA21) to .63 (SA13) for "Tolerance for Negative Outcome," and from .45 (SA34) to .63 (SA39 & SA41) for "Tolerance for Negative Quality." For the two normative (NA) factors, "Expectancy for Positive Norm" and "Tolerance for Negative Norm," the item-to-factor correlations ranged from .71 (NA1) to .81 (NA14), and from .44 (NA4) to .66 (NA10), respectively.

Known-Groups Validity

The BEACS subscales' ability to discriminate between men and women and persons with and without prior use of counseling was examined. It was hypothesized that BEACS scores would be higher among women than men. This hypothesis was based on previous research findings that women generally express more positive attitudes toward seeking professional psychological help than do men (Fischer & Farina, 1995; Fischer & Turner, 1970; Kim & Omizo, 2003; Lopez et al., 1998; Tata & Leong, 1994). Previous research also has found that participants with prior counseling experience reported more favorable attitudes toward seeking psychological help than persons without such experience (Cash et al., 1978; Dadfar & Friedlander, 1982; Fischer & Farina, 1995; Fischer & Turner, 1970; Halgin et al., 1987; Masuda et al., 2005).

Based on the research just mentioned, a between-subjects MANOVA was computed with gender and prior counseling experience as the independent variables and the five BEACS subscales as the dependent variables. As evidenced in Table 30, this resulted in a 2 x 2 (gender x prior counseling) design. As can be seen in Table 31, the MANOVA yielded a significant multivariate effect for prior counseling, and nonsignificant findings for the other main effect and the interaction effect. To quantify the difference between the two groups (with and without a prior counseling experience), the

effect size was computed using the partial Eta squared (η_p^2). The partial Eta squared is the proportion of the effect and the error variance that is attributable to the effect, while the Eta squared (η^2) is the proportion of the total variance that is attributed to an effect (Tabachnick & Fidell, 1989). The values of the Eta squared and the partial Eta squared are the same when the relationships among the independent variables are orthogonal. When they are not, the partial Eta squared provides a value of the effect size of an independent variable adjusted to another (Tabachnick & Fidell, 1989). In the current MANOVA, the partial Eta squared was computed because gender and prior counseling experience were expected to be correlated. As a result, it was found that prior counseling experience accounted for 11% of the total variability in the BEACS scores ($\eta_p^2 = .11$). Although there is no cut-off for significant effect sizes, Cohen (1988) suggested that a value larger than .06 should be regarded as medium and .14 as large.

When follow-up univariate analyses were performed, the results indicated that there were differences in responses to the Expectancy for Positive Outcome ($F = 20.39$, $p < .001$) and the Expectancy for Positive Norm ($F = 22.64$, $p < .001$) factors (see Table 32). In specific, it was found that compared to respondents who had not previously sought counseling services, people who had used counseling services scored higher on these two factors. For these factors, the effect size (η_p^2) of the prior counseling experience was .068 and .075, respectively, suggesting a medium effect size for each.

While the prior counseling effect was found to be significant for some subscales of the BEACS, it was unclear whether positive attitudes toward seeking counseling led people to seek counseling or positive counseling experiences resulted in positive attitudes toward counseling. Therefore, another MANOVA was conducted with only the 192

Table 30

Frequency of Respondents by Gender and Prior Counseling Experience (N = 283)

	Gender	
Prior Counseling	Men	Women
Yes	19	72
No	68	124

Table 31

Gender X Prior Counseling Experience MANOVA for Five Subscales of the BEACS

Source	Λ	*F*	*df*	*P*	η_p^2
Gender (A)	.974	1.463	275	.202	.026
Prior Counseling (B)	.890	6.816	275	.000**	.110
A x B	.966	1.924	275	.091	.034

***p* < .01

Table 32

Tests of Between-Subjects Effects of Gender X Prior Counseling Experience

Source	*SS*	*df*	*MS*	*F*	*P*	η_p^2
Expectancy for Positive Outcome						
Gender (A)	12.315	1	12.315	.022	.883	.000
Prior Counseling (B)	11564.653	1	11564.653	20.390	.000 **	.068
A x B	3207.323	1	3207.323	5.655	.018 *	.020
Tolerance for Negative Outcome						
A	884.850	1	884.850	2.596	.108	.009
B	133.235	1	133.235	.391	.532	.001
A x B	330.035	1	330.035	.968	.326	.003
Tolerance for Negative Quality						
A	11.587	1	11.587	.081	.776	.000
B	190.716	1	190.716	1.330	.250	.005
A x B	108.983	1	108.983	.760	.384	.003
Expectancy for Positive Norm						
A	1368.451	1	1368.451	3.656	.057	.013
B	8474.517	1	8474.517	22.644	.000 **	.075
A x B	671.117	1	671.117	1.793	.182	.006
Tolerance for Negative Norm						
A	.491	1	.491	.004	.951	.000
B	405.397	1	405.397	3.175	.076	.011
A x B	340.373	1	340.373	2.666	.104	.009

**p* < .05. ***p* < .01.

participants with no prior counseling experience. In this second MANOVA, the independent variables were gender and prior *consideration* of seeking counseling, while the dependent variables were again the five BEACS subscales. Among the 192 respondents, 43% (n = 83) reported that they had thought of seeking counseling, whereas 57% (n = 109) had not.

Table 33 shows the number of respondents from each cell of the 2 x 2 (gender x prior thought of seeking counseling) design. As can be seen in Table 34, this resulted in a significant multivariate effect for gender and nonsignificant results for the other main effect and interaction effect. Using η_p^2 as the measure of effect size, gender accounted for 7% of the total variability in the BEACS scores. Univariate analyses revealed that these differences were connected to the Expectancy for Positive Outcome (F = 5.118, p = .025 < .05) and the Expectancy for Positive Norm (F = 8.267, p = .005 < .01) factors (see Table 35). In specific, women nonusers scored higher on these two factors than did men nonusers. The effect sizes, however, were small (η_p^2 = .027 & .042, respectively), raising a question about the significance of the differences between the two groups. The gender differences were not significant for the other three factors (Tolerance for Negative Outcome, Tolerance for Negative Quality and Tolerance for Negative Norm).

Convergent Validity

To test Hypothesis 3 and provide support for the BEACS' convergent validity, Pearson's correlation coefficients were calculated between responses to the BEACS' subscales and responses to the BAPS' subscales. The results are reported in Table 36. Responses to the BEACS' subscales correlated moderately with responses to the BAPS' subscales. The correlation coefficients between the responses to the BEACS' and BAPS'

Table 33

Frequency of Respondents by Gender and Prior Consideration of Counseling (N = 192)

	Gender	
Prior Consideration	Men	Women
Yes	22	61
No	46	63

Table 34

Gender X Prior Consideration of Counseling MANOVA for Five Subscales of the BEACS

Source	λ	*F*	*df*	*p*	η_p^2
Gender (A)	.927	2.891	184	.015*	.073
Prior Consideration (B)	.960	1.545	184	.178	.040
A x B	.975	.945	184	.453	.025

*$p < .05$

Table 35

Tests of Between-Subjects Effects of Gender x Prior Consideration of Counseling

Source	*SS*	*df*	*MS*	*F*	*P*	η_p^2
Expectancy for Positive Outcome						
Gender (A)	2743.141	1	2743.141	5.118	.025 *	.027
Prior Consideration (B)	2429.160	1	2429.160	4.532	.035 *	.024
A x B	399.876	1	399.876	.746	.389	.004
Tolerance for Negative Outcome						
A	57.008	1	57.008	.177	.674	.001
B	151.059	1	151.059	.470	.494	.002
A x B	53.634	1	53.634	.167	.683	.001
Tolerance for Negative Quality						
A	274.036	1	274.036	1.969	.162	.010
B	127.422	1	127.422	.915	.340	.005
A x B	69.323	1	69.323	.498	.481	.003
Expectancy for Positive Norm						
A	3246.734	1	3246.734	8.267	.005 **	.042
B	6.523	1	6.523	.017	.898	.000
A x B	140.336	1	140.336	.357	.551	.002
Tolerance for Negative Norm						
A	482.168	1	482.168	3.698	.056	.019
B	185.409	1	185.409	1.422	.235	.008
A x B	238.239	1	238.239	1.827	.178	.010

*$p < .05$. **$p < .01$.

subscales mostly ranged from 23 to .61 with two exceptions (.14 and .10). The two low correlations were found between Tolerance for Negative Norm and two subscales of the BAPS, Intent and Expertness. The low correlations seemed appropriate because the construct measured by Tolerance for Negative Norm was conceptually different from Intent or Expertness.

The highest correlation was found between Expectancy for Positive Outcome and Expertness ($r = .61$, $p < .01$), and the second highest correlation was found between Expectancy for Positive Norm and Stigma Tolerance ($r = .59$, $p < .01$). Both results provided support for Hypothesis 3. The correlation was not strong, however, between responses to Tolerance for Negative Norm and Stigma Tolerance ($r = .23$, $p < .01$). In addition, responses to Expertness were only moderately or weakly correlated to responses to Tolerance for Negative Norm ($r = .24$, $p < .01$) or Tolerance for Negative Quality ($r = .42$, $p < .01$).

Predictive Validity

In the final stage of this study, a regression analysis was conducted using the five factors of the BEACS as predictors and the Intent factor of the BAPS as the criterion. The goal of this analysis was to test Hypothesis 4, which was based on the theoretical assumption of the BEACS. According to the TRA, a behavioral intention (*BI*) can be predicted by a linear combination of the attitudes (*A*) and the subjective norms (*SN*) associated with the target behavior (see Chapter II). Based on this hypothesis, the three subjective attitude factors (Expectancy for Positive Outcome, Tolerance for Negative Outcome, & Tolerance for Negative Quality) and the two normative attitude factors (Expectancy for Positive Norm & Tolerance for Negative Norm) of the BEACS were

Table 36

Correlations between the BEACS and the BAPS

	EPO	TNO	TNQ	EPN	TNN	Intent	Stigma Tolerance	Expertness
Expectancy for Positive Outcome								
Tolerance for Negative Outcome	.17**							
Tolerance for Negative Quality	.31**	.40**						
Expectancy for Positive Norm	.50**	.07	.31**					
Tolerance for Negative Norm	-.07	.27**	.34**	.19**				
Intent	.58**	.32**	.43**	.49**	.14*			
Stigma Tolerance	.48**	.24**	.43**	.59**	.23**	.56**		
Expertness	.61**	.24**	.42**	.52**	.10	.56**	.52**	

Note. EPO = Expectancy for Positive Outcome; TNO = Tolerance for Negative Outcome; TNQ = Tolerance for Negative Quality; EPN = Expectancy for Positive Norm; TNN = Tolerance for Negative Norm.

** $p < .01$. * $p < .05$.

entered into a regression analysis that was designed to assess the contributions of all the predictors at one time. The purpose of this analysis was to elucidate whether the responses to these factors could predict, in a linear combination, behavioral intentions to seek counseling services (Intent). Results indicated that the five predictors accounted for 46 % of the criterion (Intent) (r = .68; R^2 = .46; Adjusted R^2 = .45). The F-value of this regression model was 47.13, which was significant at the level of .01. Table 37 presents more detailed information on the results of the regression model.

As Table 37 shows, the unstandardized coefficients of the constant and the five factors (Expectancy for Positive Outcome, Tolerance for Negative Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, & Tolerance for Negative Norm) were 18.94, .08, .05, .07, .06 and .01, respectively. Therefore, the regression model can be illustrated by the linear equation as follows:

$$Y_{Intent} = 18.94 + .08\,X_{1(EPO)} + .05\,X_{2(TNO)} + .07\,X_{3(TNQ)} + .06\,X_{4(EPN)} + .01\,X_{5(TNN)}$$

While this linear model appeared to effectively explain Intent, a review of the p-values of the five subscales revealed that Tolerance for Negative Norm was not a significant predictor (p = .64 > .05). In order to discover the most effective predictors of Intent and to remove insignificant variables, a second regression analysis was conducted using a stepwise method (see Table 38).

In the first step of this stepwise regression analysis, Expectancy for Positive Outcome was entered and it was found to explain 33% of the criterion (r = .58; R^2 = .33; Adjusted R^2 = .33). In the second step, Tolerance for Negative Quality was entered, followed by Expectancy for Positive Norm in the third step. Together these factors increased the R^2 by .07 and .03, respectively. In the final step, Tolerance for Negative

Table 37

Coefficients of the Regression Model

Model	*B*	*SE*	ß	*P*
(Constant)	18.94	.86		.00
Expectancy for Positive Outcome	.08	.01	.39	.00
Tolerance for Negative Outcome	.05	.01	.16	.00
Tolerance for Negative Quality	.07	.02	.17	.00
Expectancy for Positive Norm	.06	.01	.23	.00
Tolerance for Negative Norm	.01	.02	.02	.64

Note. Dependent variable: Intent

Table 38

Summary of the Stepwise Regression Model

Step	*R*	R^2	Adjusted R^2	*SE*	ΔR^2	ΔF	*df1*	*df2*	*P*
1	.58	.33	.33	4.30	.33	140.79	1	281	.00
2	.63	.40	.40	4.08	.07	32.01	1	280	.00
3	.66	.44	.43	3.97	.03	16.92	1	279	.00
4	.68	.46	.45	3.89	.02	11.79	1	278	.00

Note. Step 1: Constant, & Expectancy for Positive Outcome.

Step 2: Constant, Expectancy for Positive Outcome, & Tolerance for Negative Quality.

Step 3: Constant, Expectancy for Positive Outcome, Tolerance for Negative Quality, & Expectancy for Positive Norm.

Step 4: Constant, Expectancy for Positive Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, & Tolerance for Negative Outcome.

Outcome was added, resulting in the final R^2 of .46. The fifth factor, Tolerance for Negative Norm, was removed in this model. In the four steps, the variations in F values were 140.79, 32.01, 16.92, and 11.79, respectively. Each of these changes was significant at the .01 level. The coefficients of the constant and the four variables (Expectancy for Positive Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm and Tolerance for Negative Outcome) were 18.92, .08, .08, .06 and .05, respectively. All four variables were found to be significant predictors of Intent at the .01 level. The final model, which utilized a stepwise method, can be illustrated by the following equation:

$$Y_{Intent} = 18.92 + .08\,X_{1(EPO)} + .08\,X_{2(TNQ)} + .06\,X_{3(EPN)} + .05\,X_{4(TNO)}$$

Summary

Study 3 incorporated evaluations of the BEACS' factorial validity and concurrent validity. This study also illuminated the BEACS' ability to discriminate between men and women, persons with and without prior counseling experiences, and persons with and without prior consideration of seeking counseling.

Four hypotheses regarding the BEACS' validity were tested. The first hypothesis involved the BEACS' factorial validity. Three models discovered in Study 2 were again tested in Study 3. Model A, the hypothesized model, consisted of 34 items, five first-order latent variables, and one higher order factor representing the total BEACS. Model B, a competing model, was comprised of 40 items, six first-order latent variables and one higher order latent variable. Another alternative model, Model C, consisted of 40 items, three first-order latent variables and one higher order latent variable. To estimate the fit of the data to each of the three models, several fit indices were used: χ^2, the goodness-of-fit index (GFI); the adjusted goodness-of fit index (AGFI); the comparative fit index (CFI);

the root-mean-square error of approximation (RMSEA); and the single-sample expected cross-validation index (ECVI). A review of the indices revealed that the hypothesized model (Model A) was the best fit as the χ^2 and ECVI were smaller and the GFI and AGFI were larger than the other two alternative models. It appeared, however, that Model A should be modified to improve the model fit given that the ranges of the indices were only moderately significant and only slightly higher than in Model B.

To improve the model fit, less valid items were identified and removed. As a result, two items (NA5 & NA8) with low factor loadings were deleted. In addition, four items (SA5, SA14, SA32, & NA12) were also deleted as they did not appear to contribute to the scale (as evidenced by increased or consistent Cronbach's alphas when these items were deleted). The remaining 28 items were subjected to another confirmatory factor analysis (Model A′), resulting in significant improvement in the model fit. This improvement was noted by a larger GFI, AGFI, and CFI than was found in the previous two models. Cronbach's alpha for the total 28-item BEACS was .88. Similarly, Cronbach's alphas for the five subscales ranged from .77 (Tolerance for Negative Norm) to .90 (Expectancy for Positive Outcome & Expectancy for Positive Norm).

The final 28-item BEACS was subjected to an additional three tests of validity: known-group validity, convergent validity, and predictive validity. These three types of validity were examined by testing three hypotheses. To evaluate the BEACS' known-group validity, differences in the five subscales' scores were compared between men and women, users and non-users of counseling, and people who have thought and those who have not thought of seeking counseling. A two-way MANOVA was performed, with the five subscales as the dependent variables and gender and prior counseling experience as

the independent variables. The results revealed a significant MANOVA main effect for prior counseling and significant univariate effects involving the Expectancy for Positive Outcome and Expectancy for Positive Norm factors. These results partially supported Hypothesis 2. Another two-way MANOVA was computed with only 192 participants that had no prior counseling experience. Main and interaction effects for gender and prior consideration of seeking counseling were examined with the five subscales of the BEACS as dependent variables. As a result, a significant MANOVA main effect for gender was discovered and univariate analyses revealed that two subscales (Expectancy for Positive Outcome and Expectancy for Positive Norm) accounted for this finding. Taken together, these results partially supported Hypothesis 2.

Finally, convergent validity and predictive validity were evaluated using the 18-item BAPS (Ægisdóttir & Gerstein, in press). It was hypothesized that responses to the BEACS and the BAPS would be moderately correlated as both instruments were designed to measure the same construct. Responses to the five subscales of the BEACS (Expectancy for Positive Outcome, Tolerance for Negative Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, & Tolerance for Negative Norm) and to the three subscales of the BAPS (Intent, Stigma Tolerance, & Expertness) were subjected to a correlation analysis. Results indicated moderate correlations (mostly ranging from .23 to .61) between the responses to the subscales of the BEACS and the BAPS, which confirmed the hypothesis.

As a further step to compare the BEACS and the BAPS, a regression analysis was conducted with the five factors of the BEACS as the predictors and the Intent factor of the BAPS as the criterion. It was hypothesized that Intent could be predicted by a linear

combination of the five factors of the BEACS. Two methods were used to test this hypothesis – an entering method and a stepwise method. Initially, all five predictors or factors were entered simultaneously. Results indicated that the five predictors accounted for 46 % of the Intent variable. All variables, with the exception of Tolerance for Negative Norm predictors, were found to be significant predictors of the criterion. In a second regression analysis, a stepwise method was used to discover the most effective predictors of Intent and to remove insignificant variables. In each step of the analysis, Expectancy for Positive Outcome, Tolerance for Negative Quality, Expectancy for Positive Norm, and Tolerance for Negative Outcome were entered in the same order they were listed. The fifth factor, Tolerance for Negative Norm, was removed in this regression model. Of the four remaining variables, all were found to be significant predictors of Intent at the .01 level, accounting for 46 % of the variance. The results of the regression analysis confirmed Hypothesis 4, with an exception of one subscale (Tolerance for Negative Norm).

CHAPTER VI

DISCUSSION

The purpose of the present project was to develop a measure of attitudes toward counseling services based on social psychological theories of attitudes. The Beliefs and Evaluations About Counseling Scale (BEACS) was constructed and tested within the conceptual framework of the Multiattribute Model of Attitudes (MMA) (Fishbein, 1963) and the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975, 1980). Development of the BEACS was accomplished through three studies that incorporated both qualitative and quantitative methodologies, as well as various measurements for validity and reliability. In this chapter, the rationale of this project, processes related to scale development, and results for each study will be discussed. Strengths and limitations of the BEACS will also be addressed with emphasis placed on its theoretical foundation, the research methodology employed to develop the measure, and the psychometric properties of the scale. Finally, future implications for research and practice will be discussed.

Rationale for the Development of the BEACS

Over the past several years, literature in the field of counseling psychology has revealed increased interest in attitudes associated with seeking psychological help. Much of this research has focused on a better understanding of the utilization of mental health services (Ægisdóttir & Gerstein, in press). Since attitudes are important variables in models used when predicting a behavior (Fishbein, 1963; Kiesler et al., 1969), measuring attitudes toward seeking psychological help is an important area for research as it may

enhance our understanding regarding the utilization of mental health services and those obstacles that might deter individuals in need of psychological intervention.

When developing measurement scales, an underlying theoretical foundation plays a vital role in defining the latent construct to be measured (DeVellis, 1991). For this reason, DeVellis (1991) recommended that relevant social science theories should always be considered before beginning scale development. In fact, researchers in many areas of applied social psychology, such as marketing (e.g., Buck et al., 2004; Greenleaf, 1992; Newell et al., 2001), economics (e.g., Furnham, 1991), and politics (e.g., Ohanian, 1991), addressed general theories of attitudes when they measured their target populations' attitudes toward an object or a service of interest in these domains. Researchers in counseling psychology, however, seem to have limited interest in general theories of attitudes when they measure clients' attitudes toward mental health services. With few exceptions, the literature of counseling psychology contains little mention of theoretical models of attitudes. As McKenzie and his colleagues (2004) criticized, most studies on psychological help-seeking attitudes have "failed to incorporate social psychological theories that have improved the prediction of behavior and behavioral intention from attitudes" (p. 2411). This lack of attention to theory makes it not only appropriate, but necessary to attempt to generate a theoretical approach toward seeking psychological help.

Apart from the need for research based upon solid theoretical foundations, there is also a growing need for a new scale that is responsive to the recognition of the psychometric limitations of previous measures. In many instances, most researchers studying attitudes toward seeking psychological help employed Fischer and Turner's

(1970) ATSPPH (e.g., Atkinson & Gim, 1989; Cash et al., 1978; Dadfar & Friedlander, 1982; Delphin & Rollock, 1995; Fischer & Cohen, 1972; Hall & Trucker, 1985; Kelly & Achter, 1995; Tata & Leong; 1994). Although almost four decades have passed since the ATSPPH was developed, few alternatives have been introduced and current researchers are still using this scale without questioning its validity.

The ATSPPH was designed to measure individuals' attitudes toward seeking professional psychological services. This scale consists of 29 items associated with the concerns and characteristics of individuals who seek professional psychological help. According to Fischer and Turner (1970), the ATSPPH has four factors that they termed Recognition of Need for Psychotherapeutic Help, Stigma Tolerance, Interpersonal Openness, and Confidence in Mental Health Practitioner. Despite its contribution to the growing body of knowledge related to psychological help-seeking attitudes, researchers have questioned the validity for this scale (Fischer & Farina, 1995; McKenzie et al., 2004; Ægisdóttir & Gerstein, in press).

The first limitation of the ATSPPH is its content validity as some items appear unrelated to attitudes toward seeking psychological help – rather, they seem to focus on personal characteristics (e.g., "Keeping one's mind on a job is a good solution for avoiding personal worries and concern"). Further, developed in 1970, some of the terminology used in the ATSPPH is outdated. For example, current researchers and practitioners in the field of counseling psychology no longer use the term "mental trouble," but use the less stigmatizing term "psychological distress." Another limitation of the ATSPPH relates to its construct validity. The four-factor structure proposed by Fischer and Turner (1970) seems to be unstable for several reasons, including low

internal consistency for one of the subscales (e.g., the internal reliability coefficient of the factor Interpersonal Openness was as low as .62), low factor loadings (e.g., an item, "considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me," has a loading of –.23 on its primary factor), and factorial dimensions that were not supported by subsequent studies (e.g., Dadfar & Friedlander, 1982; Fischer & Cohen, 1972; Morgan, 1992; Surgenor, 1985). In response to these criticisms, Fischer and Farina (1995) introduced a shorter version of the scale (the ATSPPH-Short Form) based on a unidimensional model of attitudes. The unitary model of attitudes, however, needs further analysis, and is a topic of controversy among researchers (Bagozzi & Burnkrant, 1979; Katz & Stotland, 1959; Norman, 1975; Rosenberg, 1968).

As an alternative to the current scales (e.g., ATSPPH, ATSPPH-SF), some researchers have used unpublished scales or open-ended questions in their research related to psychological help-seeking attitudes (e.g., Clary & Fristad, 1987; Cook et al., 1984; Halgin et al., 1987). These alternative instruments, however, are not desirable substitutions for the ATSPPH because their reliability and validity have not been sufficiently reported. Therefore, developing a culturally-current, psychometrically-sound, and theoretically-driven scale to measure attitudes toward counseling is appropriate, important, and necessary. Further, given that there are few instruments in this line of research, a new scale would expand the measurement options for researchers and practitioners seeking to better understand attitudes toward mental health services.

When developing the BEACS, therefore, the present author followed the 8 steps of scale development proposed by DeVellis (1991): 1) Determine clearly what to

measure; 2) generate an item pool; 3) determine the format for measurement; 4) have initial item pool reviewed by experts; 5) consider inclusion of validation items; 6) administer items to a development sample; 7) evaluate the items; and 8) optimize scale length. In the following section, relevant social psychological theories of attitudes will be discussed to address the first step (i.e., determine clearly what to measure). Next, each of the three studies conducted for this project will be analyzed using steps 2 to 8 of DeVellis's (1991) model.

Theoretical Foundation of the BEACS

The BEACS was developed using multidimensional, information-processing models of attitudes that assume that the process clients go through in finding a mental health provider is similar to the process consumers undergo when making a financial investment. The MMA (Fishbein, 1963) and the TRA (Fishbein & Ajzen, 1975, 1980) served as the conceptual framework for the BEACS as previous researchers proposed that these models might be useful when explaining a person's psychological help-seeking behavior and attitudes (Mackenzie et al., 2004; Ægisdóttir & Gerstein, in press).

According to the MMA (Fishbein, 1963), an individual's attitudes toward a certain object (A_O) could be represented by multiplying the strength of beliefs (*b*) about attributes associated with the object by an evaluation (*e*) of the attributes. Later, Fishbein and Ajzen (1975) revised and expanded the MMA into the TRA. In contrast to the MMA, the TRA focuses on attitudes toward performing a behavior concerning an object (A_B) rather than attitudes toward an object itself (A_O). Moreover, a second component, social norms (*SN*), was added to the TRA in order to improve the prediction of behavioral

intention. This component is computed by multiplying normative beliefs (*NB*) by motivation to comply (*MC*).

While the TRA or the TPB (Ajzen, 1985, 1987) is a more current model, the original model (MMA) proposed by Fishbein (1963) was used predominantly in this project for two reasons. First, the basic purpose of the BEACS was to measure attitudes rather than the intention to seek counseling. While including the concept of social norms (*SN*) from the TRA appeared relevant when measuring attitudes toward counseling, the present author believed that the format of the *SN* items ("*X* thinks I should do the behavior") may have been insufficient to measure various aspects of subjective norms. Therefore, the BEACS was designed to focus on measuring attitudes toward seeking counseling, excluding the *SN* component. Still, to improve the measure's predictive power, the normative concept from the TRA was adopted for the BEACS. In other words, the present author proposed two types of beliefs: subjective and normative. Subjective beliefs refer to an individual's own thoughts about seeking counseling, while normative beliefs incorporate anticipated reactions from others regarding one's choice to seek counseling.

The second reason that the MMA was utilized instead of the more current models related to the ease with which the former model could be formatted into a scale. For example, only one pair of scales (a belief scale and an evaluation scale) is necessary when using the original MMA, while four different scales (belief, evaluation, subjective norm, & motivation to comply) should be constructed when drawing from the TRA. Therefore, by utilizing the MMA and incorporating the normative concept of the TRA, the BEACS measured attitudes (*A*) without the *SN* component, and it retained both

subjective and normative items.

Once the above framework was put in place, five specific aims were established: 1) To develop a scale (BEACS) to measure both subjective and normative attitudes toward counseling; (2) to examine the factor structure of the BEACS; (3) to examine the internal consistency reliability of the BEACS; (4) to examine the convergent validity of the BEACS; and (5) to examine the predictive validity of the BEACS. Each of these aims was accomplished through a series of three studies. Study 1 employed a qualitative approach to item generation and scale construction. Study 2 explored latent variables or factors of the BEACS. Finally, Study 3 examined various aspects of the BEACS' validity including construct validity (via a confirmatory factor analysis), known-groups validity (via MANOVA's), and convergent and predictive validity (utilizing correlation and regression analyses).

Study 1: Item Generation

The generation of the items for the BEACS began with a structured group survey employing a paper-pencil questionnaire format. A total of 43 college students were recruited, with an almost equal number of males and females represented. Although the present author believed that the desirable number of participants for a qualitative study may vary by the purpose and nature of the study, the current sample size appeared large enough to derive attributes associated with attitudes toward seeking counseling. This determination was made by comparing the current sample size to the number of participants normally used (seven to eight) when relying on alternative research methods such as a focus group interview (Krueger, 1994; Morgan, 1997).

The responses from the qualitative pilot were reviewed by three doctoral students

in a Counseling Psychology program. Items with high inter-rater reliability were selected by the three doctoral students, and were then presented to two counseling psychologists and a social psychologist for an expert review. This process resulted in 45 pairs of subjective items and 16 pairs of normative items. Each pair consisted of a belief item and a corresponding evaluation item. These results confirmed the theoretical assumption that the BEACS should consist of belief and evaluation components. Moreover, it confirmed that the belief component would be comprised of both subjective and normative beliefs.

Furthermore, a closer review of the subjective component revealed that the subjective belief items could be grouped into two constructs based on content: Outcomes of counseling (labeled "Counseling Outcome") and Qualities of the counselor (labeled "Counselor Quality"). The validity for these constructs is supported by both previous theories (Fishbein & Ajzen, 1975, 1980) and several studies (Fischer & Turner, 1970; Ægisdóttir & Gerstein, in press). The Counseling Outcome construct corresponds with Fishbein and Ajzen's (1975, 1980) general attitude construct, which refers to an individual's beliefs about a behavioral outcome. The Counselor Quality dimension measures beliefs regarding characteristics about counselors and their services. This dimension corresponds to the Expertness factor on the BAPS (Ægisdóttir & Gerstein, in press) or the Confidence in Mental Health Practitioner factor on the ATSPPH (Fischer & Turner, 1970).

Finally, it appeared that the two subjective factors (Counseling Outcome & Counselor Quality) and the one normative factor could be divided into two categories: Positive and Negative attributes of seeking counseling. The emergence of these two constructs in opposition to one another (i.e., positive vs. negative) is consistent with the

classical social psychological notion of the approach-avoidance conflict (Miller, 1944). According to Miller's (1944) approach-avoidance conflict theory, attitudes toward a certain object can be explained by competing motivational and inhibitory influences. Applying this model in a psychological help-seeking context, an individual's attitudes toward seeking counseling may be understood as a function of perceived positive and negative outcomes when seeking counseling.

The results of Study 1 led to a conceptual structure for the BEACS (see Table 39) consisting of six factors: Positive Outcome, Negative Outcome, Positive Quality, Negative Quality, Positive Norm, and Negative Norm. Alternative structures were also considered. One such structure combined both positive and negative factors, as a negative factor may be viewed as the inverse of a positive factor. Therefore, two-factor (Subjective vs. Normative) and three-factor models (Counseling Outcome, Counselor Quality, & Social Norm) were also considered (see Table 39).

Conceptually, the BEACS may consist of two components, subjective attitudes (A_S) and normative attitudes (A_N). In this model, each subjective and normative subscale was viewed as a unitary dimension. In the three-factor model (Counseling Outcome, Counselor Quality, & Social Norm), by contrast, the subjective component was viewed as multidimensional (Counseling Outcome & Counselor Quality). This multidimensional model of subjective attitudes can be supported by empirical studies (Fischer & Turner, 1970; Ægisdóttir & Gerstein, in press). For instance, Ægisdóttir and Gerstein (in press) used the TPB when developing the BAPS scale and found three factors: Intent, Expertness, and Stigma Tolerance. They related the Stigma Tolerance factor to the normative component of the TPB, while associating the two other factors to

the subjective component.

Study 2: Factor Exploration

After the initial pool of items was developed and analyzed, exploratory factor analyses were conducted to select the most valid items and to explore the latent variables of the scale. During this process, means, standard deviations, item-to-total statistics for both belief and evaluation items, and internal consistency (Cronbach's alphas) for the scale were also examined.

A large sample (497 college students) was used for conducting these analyses. This large sample was considered a desirable aspect of this study as Nunnally and Bernstein (1994) argued that a large sample can enhance the validity and reliability of the research. In addition, Gorsuch (1983) proposed that a ratio of five individuals per item be used to determine the minimum number of individuals needed for a factor-analytic procedure. Since the initial item pool of the BEACS was comprised of 61 items, the sample size used for this study appeared large enough to conduct a valid factor analysis.

The exploratory factor analysis was conducted in two phases. The first phase included an analysis of the belief scale, while the second phase involved an analysis of the attitude scale. The purpose of the first phase was to select the most valid belief items and to explore latent variables underlying college students' beliefs associated with seeking counseling. The principle component method was used for extraction of the initial factors. For factor rotation, both orthogonal and oblique methods were utilized and compared. Through the orthogonal method, 55 items were selected and five factors were extracted. When the oblique method was used, the same number of factors was extracted, but fewer items (43 items) were selected. After a close review of both versions of the

Table 39

Conceptual Structure of the BEACS

	Subjective		Normative
	Counseling Outcome	Counselor Quality	Social Norm
Positive	Positive Outcome	Positive Quality	Positive Norm
Negative	Negative Outcome	Negative Quality	Negative Norm

Table 40

Factor Structure of the Belief Scale of the BEACS

	Subjective		Normative
	Counseling Outcome	Counselor Quality	Social Norm
Positive	Positive Outcome	Positive Quality	Social Norm
Negative	Negative Outcome	Negative Quality	

Table 41

Factor Structure of the Attitude Scale of the BEACS (6-Factor Model)

	Subjective		Normative
	Counseling Outcome	Counselor Quality	Social Norm
Positive	Expectancy for Positive Outcome	Expectancy for Positive Quality	Expectancy for Positive Norm
Negative	Tolerance for Negative Outcome	Tolerance for Negative Quality	Tolerance for Negative Norm

Table 42

Factor Structure of the Attitude Scale of the BEACS (5-Factor Model)

	Subjective		Normative
	Counseling Outcome	Counselor Quality	Social Norm
Positive	Expectancy for Positive Outcome		Expectancy for Positive Norm
Negative	Tolerance for Negative Outcome	Tolerance for Negative Quality	Tolerance for Negative Norm

belief scale, the 43-item version was selected for further analyses as it appeared to have several advantages over the 55-item scale (e.g., lower correlations among responses to factors, a larger percentage of total variance explained by the factors, and shorter length).

The five factors extracted were labeled Positive Outcome, Negative Outcome, Positive Quality, Negative Quality, and Social Norm. This five-factor model partially confirmed the conceptual structure hypothesized in Study 1, and showed that the normative construct would consist of only one factor (Social Norm), without the distinction of positive and negative components, while the subjective construct would consist of four distinctive factors (see Table 40).

The validity of the Positive Quality factor, however, appeared questionable since all six items tied to this factor had small standard deviations ($SD < .80$). This finding implied that this factor may not differentiate between respondents who had more positive attitudes and those who held less positive attitudes toward counseling. However, at this stage of the scale development, the Positive Quality factor was not dropped, but was retained for further examination.

The second phase of the analysis involved an exploratory factor analysis of the attitude items of the BEACS. Attitude item scores were produced by multiplying each of the 43 belief items with its corresponding evaluation item. The purpose of this phase of analysis was to explore the underlying construct, *attitudes*, thought to be measured by the BEACS. Principle component factor extraction was used with an oblique rotation method. Results revealed that the attitude items on the BEACS could consist of either five or six factors. The five-factor model included 34 items and explained 58% of the total variance. The six-factor model included 40 items and explained 59% of the total variance.

As Table 41 shows, the six-factor model of the BEACS fully supported the conceptual model hypothesized in Study 1. In Study 1, six categories of themes were derived from the use of qualitative procedures, including positive outcome of counseling, negative outcome of counseling, positive qualities of the counselor, negative qualities of the counselor, positive social norms, and negative social norms (see Table 39). Each of the six factors extracted in Study 2 represented each of the categories derived in Study 1 (see Table 41). Thus, the factors were labeled Expectancy for Positive Outcome, Tolerance for Negative Outcome, Expectancy for Positive Quality, Tolerance for Negative Quality, Expectancy for Positive Norm, and Tolerance for Negative Norm, respectively.

The alternative 5-factor model (see Table 42), in contrast, partially confirmed the conceptual hypothesis of Study 1 with the exception that this model excluded the Expectancy for Positive Quality factor. In other words, each of the five factors represented each of the five categories (out of the total six categories) derived in Study 1 with the exception of the Positive Quality category. Given that the validity for the Positive Quality factor was found to be questionable in the previous analysis of the belief scale, excluding the Expectancy for Positive Quality factor appeared reasonable.

A review of the literature also revealed evidence supporting the five-factor model because positive outcomes of counseling and positive qualities of the counselor were not separated but combined into a single factor for at least two measures: the ATSPPH and the BAPS. For instance, both the Confidence in Mental Health Practitioner factor on the ATSPPH and the Expertness factor on the BAPS measure persons' beliefs regarding characteristics about psychologists ("Counselor Quality") *and* their services ("Counseling

Outcome").

In terms of the negative factors (Tolerance for Negative Outcome, Tolerance for Negative Quality, & Tolerance for Negative Norm), by contrast, the separation of the Counseling Outcome ("Tolerance for Negative Outcome") and the Counselor Quality ("Tolerance for Negative Quality") factors fit with the literature since the three factors (Coercion Concerns, Therapist Responsiveness & Image Concerns) linked with the Thoughts About Psychotherapy Survey (TAPS; Kushner & Sher, 1989) appeared to correspond to the three negative factors tied to the BEACS (Tolerance for Negative Outcome, Tolerance for Negative Quality, & Tolerance for Negative Norm). As reviewed in Chapter II, the TAPS was designed to measure fears associated with seeking psychotherapy. The Therapist Responsiveness factor reflects rapport concerns and concerns related to the therapist's competency. This factor appeared to correspond to the Tolerance for Negative Quality factor on the BEACS. The Coercion Concerns factor represented the "fears of (coerced) change" (Kushner & Sher, 1989, p.252) as a result of psychotherapy, which has to do with the Tolerance for Negative Outcome factor on the BEACS. Finally, the Image Concerns factor focused on the concerns about social perceptions about seeking psychotherapy, and fit with the Tolerance for Negative Norm factor on the BEACS.

In summary, both five-factor and six-factor models were supported either by the conceptual structure hypothesized in Study 1 (six-factor model), by the literature (five-factor model), or by the empirical results obtained from the first phase of the analysis in Study 2. Both models had many similarities in their factor structures, percentage of the total variance explained, and Cronbach's alphas. Therefore, both the five- and six-factor

models for the attitude scale of the BEACS were subjected to a confirmatory factor analysis (Study 3) to select the model with the better fit.

Study 3: Factor Confirmation

Study 3 involved the testing of four hypotheses regarding the BEACS' factor structure and a further examination of the BEACS' validity. Hypothesis 1 involved an examination of the five-factor model (hypothesized model) and two competing models, six- and three-factor models, for the BEACS using another independent sample comprised of 283 college participants.

Results of the confirmatory factor analyses revealed that various fit indices and factor loadings supported the five- or six-factor models over the three-factor model. Differences between the five- and six-factor models, however, were not found to be significant. Therefore, the five-factor model was selected because this model included fewer items than the six-factor model, but was further adjusted to improve the model fit. After deleting six items due to low factor loadings and little contribution to the internal consistency, 28 items were selected to constitute the final version of the BEACS. These items constituted five subscales: Expectancy for Positive Outcome (9 items), Tolerance for Negative Outcome (6 items), Tolerance for Negative Quality (6 items), Expectancy for Positive Norm (7 items), and Tolerance for Negative Norm (6 items). Three indices indicating goodness of fit (GFI, AGFI & CFI) for this model were above the general cut-off (.80) proposed by Cole (1987). The RMSEA value (.07) was also at an acceptable level given that Browne and Cudec (1993) suggested that values ranging between .06 and .08 indicate an acceptable fit.

In summary, results across the three studies supported the theoretical assumption

regarding the structure of the BEACS. First, the respondents clearly distinguished the subjective from the normative components of the BEACS. Theoretically, the subjective attitudes (A_S) should have consisted of the *outcome* factors (Expectancy for Positive Outcome & Tolerance for Negative Outcome) since these factors corresponded to Fishbein and Ajzen's (1975, 1980) general attitude construct, referring to an individual's beliefs about a behavioral outcome. However, a *quality* factor (Tolerance for Negative Quality) was also extracted that referred to the perceived characteristics of counselors. This additional dimension (*quality*) was also noted in the literature in that the BAPS included an Expertness factor (Ægisdóttir & Gerstein, in press) and the ATSPPH included the Confidence in Mental Health Practitioner factor (Fischer & Turner, 1970). An interesting finding in the current study is that only the Tolerance for Negative Quality factor was added and the Expectancy for Positive Quality factor was dropped, while both factors were found to be tied to the *quality* dimension. This result may imply that the current respondents' expectation for a counselor with positive qualities did not function as a "motivational influence" when seeking counseling. However, anticipation of a counselor with negative qualities may have served as a significant "inhibitory influence" on an individual's choice to seek mental health services.

Validity of the BEACS

In addition to a confirmatory factor analysis, Study 3 also involved testing three additional hypotheses (Hypotheses 2 through 4) to explore the validity of the BEACS. Hypothesis 2 focused on examination of convergent validity, and Hypotheses 3 and 4 were tests of convergent and predictive validity, respectively. The same sample (283 college students) employed for the confirmatory analysis was used.

Given that it is likely that the BEACS can be used to predict a given population's utilization of counseling services, it was important to address the extent to which scores on this instrument and its subscales could discriminate between respondents who were more or less likely to seek counseling. Therefore, Hypothesis 2 stated that, "Women, counseling users, and people who had considered seeking counseling would score higher on the BEACS than men, nonusers, and people who had not considered seeking counseling." Consistent with this hypothesis, results of a two-way univariate analysis (gender x prior counseling experience) revealed that scores on the Expectancy for Positive Outcome and the Expectancy for Positive Norm subscales were higher among people who reported past use of counseling than those who did not. Another two-way univariate analysis with only participants who had no prior counseling experience (n = 192) resulted in a main effect for gender involving two BEACS subscales (Expectancy for Positive Outcome and the Expectancy for Positive Norm).

The two sets of results just reported partially confirmed Hypothesis 2 to the extent that responses to two of the BEACS subscales were able to discrimate women from men who had no prior counseling experience, and people who had and had not used counseling. These results were consistent with the literature that has suggested that women and people who had sought counseling had more positive attitudes toward counseling than men and persons who had not pursued counseling (Butler et al., 1985; Fischer & Farina, 1995; Fischer & Turner, 1970; Halgin et al., 1987; Horwitz, 1977; Kessler et al., 1981; Lopez et al., 1998; Tata & Leong, 1994).

Despite the above findings, it should be noted that the between-groups differences (i.e., users vs. nonusers; men vs. women; people who have considered vs. have not

considered seeking counseling) were not significant for the other three factors – Tolerance for Negative Outcome, Tolerance for Negative Quality, and Tolerance for Negaitive Norm. With a recognition that all three of these factors involved negative aspects of seeking counseling, a possible interpretation for these results is as follows. Both groups (with more or less positive attitudes toward counseling) may have been equally aware of the negative effects of counseling (e.g., discomfort, embarrassment). Thus, what may motivate people to seek counseling is not a higher tolerance for the possible negative effects (e.g., discomfort, embarassment) but a higher expectancy for the positive effects of this service (e.g., problem soving, better state of mind).

The non significant findings just mentioned, however, do not weaken the predictive validity for the BEACS. Rather, these results are consistent with the theoretical foundation of the BEACS. Recall, the TRA (Fishbein & Ajzen, 1975, 1980) posits that behavioral intentions are not predicted by each component, but by a linear combination of the components. Following this theoretical assumption, a regression analysis was conducted in the current project to test the linear combination of the five factors linked with the BEACS to determine whether responses to these factors could predict an individual's intention to seek counseling. This analysis was designed to test Hypothesis 4, which stated that, "Responses to the five subscales of the BEACS will predict willingness to seek counseling as measured by the Intent subscale of the BAPS."

Results indicated that the five predictors accounted for 46% of the variance in the Intent factor, providing support for Hypothesis 4. Through an additional regression analysis using a stepwise method, it was also found that all the predictors, with the exception of Tolerance for Negative Norm, were significant predictors of the criterion.

This set of findings provided further support for the predictive validity of the BEACS since these results were consistent with the literature that has reported a significant correlation between general attitudes toward seeking psychological services and persons' willingness to seek psychological services (Cramer, 1999; Lopez, et al., 1998; Vogel & Wester, 2003).

Hypothesis 3 involved an examination of convergent validity. It was hypothesized that responses to the five subscales of the BEACS and the three subscales of the BAPS (Ægisdóttir & Gerstein, in press) would be moderately correlated. Recall that the BAPS was designed to measure beliefs and intent to seek psychological services. As stated earlier, the developers of the BAPS reported three factors including Intent, Expertness, and Stigma Tolerance. Since the BEACS' and the BAPS' factors measure similar constructs, it was hypothesized that moderately high correlations would be found between responses to the five subscales of the BEACS and the three subscales of the BAPS. The results confirmed this hypothesis, as the highest correlation was .61. This was found between responses to the Expectancy for Positive Outcome factor linked with the BEACS and the Expertness subscale connected to the BAPS. This finding suggested that these subscales shared approximately 37% of the total variance. Furthermore, because the BAPS' Expertness subscale assessed individuals' perceived beliefs regarding characteristics about psychologists and their services (Ægisdóttir & Gerstein, in press), this result provided evidence for the construct validity of the Expectancy for Positive Outcome subscale linked with the BEACS.

The two subscales shared variance to the extent they both measured an individual's perceived beliefs about a behavioral outcome as a consequence of receiving a

well-trained mental health practitioner's services. However, each of these two subscales also appear to measure unique constructs. For instance, the Expectancy for Positive Outcome subscale measures overal outcomes of seeking counseling which are not necessarily attributed to a counselor's characteristics or training. For example, a respondent may not anticipate "getting a better state of mind" (sb9) as a result of a counselor's Expertness, but simply as a result of being able to speak openly about their problems. On the other hand, the Expertness subscale measures characteristics of psychologists that are not included on the Expectancy for Positive Outcome factor. In the initial version of the BEACS, such characteristics constituted the Expectancy for Positive Quality factor, but they were eliminated in the final version of the BEACS. The Tolerance for Negative Quality factor remained, however, in the final version of the BEACS, as responses loading on this factor had a moderate correlation (.42) with the responses to the Expertness factor of the BAPS. This result implied that some of the perceived negative characteristics of a counselor were related to potential deficits in expertise, while other negative characteristics were not (e.g., "my counselor's personality would not match well with mine").

Interestingly, a small correlation (.24) was found between responses to the BEACS' Tolerance for Negative Outcome factor and the BAPS' Expertness factor. This finding was unexpected because the Tolerance for Negative Outcome factor was considered the inverse of the Expectancy for Positive Outcome subscale, which was correlated at a moderately high level (.61) with responses to the BAPS' Expertness factor. This particular finding supports the 5-factor model for the BEACS suggesting that "negative outcome" is not simply a deficit of a "positive outcome" or "expertness," but a

unique construct that functions as an active inhibitory influence to an individual's seeking counseling.

Taking into consideration that the normative attitude component refers to other peoples' influence on an individual's decision to seek counseling, a moderately high to high level of correlation was expected between responses to the normative factors (Expectancy for Positive Norm & Tolerance for Negative Norm) and the Stigma Tolerance factor of the BAPS. Confirming this hypothesis, a moderate degree of correlation (.59) was found between responses to the Expectancy for Positive Norm factor and the Stigma Tolerance factor. This finding suggested that these two subscales shared approximately 35% of the total variance. However, contrary to the hypothesis, responses to the Tolerance for Negative Norm factor were only minimally correlated to responses to the Stigma Tolerance factor (.23). This finding implied that the construct validity for the Tolerance for Negative Norm factor may be questionable. This limitation will be further discussed later in this Chapter.

Reliability of the BEACS

When the 28-item version of the BEACS was administered to a sample of 183 college students, analyses indicated high internal consistency ($\alpha = .88$). The five subscales of the BEACS were also found to have high reliability with Cronbach's alphas ranging from .77 to .90. The Expectancy for Positive Outcome subscale, which consisted of eight items, was found to have the highest alpha (.90), while the lowest alpha (.77) was found for the Tolerance for Negative Norm subscale which consisted of five items. Despite the low alpha for the Tolerance for Negative Norm subscale, no subscale on the BEACS was found to have an alpha below the generally accepted cutoff of .70 (Nunnally

& Bernstein, 1994). It should be noted that test-retest reliability for the BEACS was not assessed in this project. Thus, it remains to be seen if the reliability for the BEACS and its subscales would remain stable over time.

Limitations of the Research

As with all research, the present project has several limitations. First, the correlational analysis, MANOVA, and regression analysis consistently revealed that the Tolerance for Negative Norm factor was not a significant factor. Conceptually, this factor was thought to measure an individual's tolerance for negative social norms such as social stigma. Thus, a high correlation was expected between responses to this factor and the Stigma Tolerance factor of the BAPS. To the contrary, this correlation coefficient was low (.23), suggesting that these factors shared only 5% of the variance. In addition, responses to the Tolerance for Negative Norm factor were not able to discriminate between college students who were more or less likely to seek counseling. Finally, the regression analysis with the five factors of the BEACS as predictors and the Intent factor of the BAPS as the criterion revealed that the Tolerance for Negative Norm factor was not a significant predictor of Intent. Taken together, these findings suggest that this factor has limited construct validity. Because the literature argues that social stigma is an important component of an attitude construct (Fischer & Turner, 1970; Timlin-Scalera et la., 2003; Ægisdóttir & Gerstein, in press), the present author believes that the current Tolerance for Negative Norm factor should be revised and improved rather than simply discarded from the BEACS.

It is the present author's belief that the difficulty with the Tolerance for Negative Norm factor may be due to how participants were expected to respond to the BEACS.

Before responding to normative (both positive and negative) items, respondents were prompted by the following instruction: “From the following list, indicate 3-5 people who you would consider as the most important to you in making a decision to seek or not seek psychological services.” Next, a list of references were provided in the form of a checklist, followed by the second instruction: “Keeping in mind these 3-5 people, imagine how these people would react if they know you are seeking counseling.” In this project, respondents tended to choose persons with whom they likely shared a close relationship, such as a family member or a friend. Since these persons are more likely to be *supportive others* rather than *judgemental others*, the respondents may have expected generally favorable reactions from the references. This tendency may have significanly impacted their responses to the Negative Norm items. Since it is expected that social stigma is more likely to come from *judgemental others* (peer group, boss, public etc.) than from *supportive others* (family, partner, best friend etc.), the instruction for the BEACS should be modified to also prompt the respondents for their *judgemental others* who might negatively influence their psychological help seeking.

Another limitation of this study has to do with the possibility of a testing order bias. In both Study 2 and 3, all participants took the subjective belief scale, subjective evaluation scale, normative belief scale, and normative evaluation scale in that order as part of the online InQsit survey. In Study 3, the participants also took the BAPS, following the completion of all the belief and evaluation scales of the BEACS. The items associated with the belief and evaluation scales were similar to each other, but were linked with a different scale format (Likert-type vs. Semantic Differential). Further, the belief scale of the BEACS and the entire BAPS seemed to measure similar concepts and

each used the same scale format (Likert-type scale). Therefore, in this measuring system, responses in the current project had the potential to be biased because of the testing order, the similar formats of the scales, and potential response fatigue due to the repetition of similar items.

Another limitation of the BEACS is related to its reliability. Because test-retest reliability was not investigated, there remain questions about the stability of responses to the BEACS over time.

Another limitation needs to be mentioned. Participants in this project were not diverse in terms of ethnicity, gender, age, and their region of residence. The participants in all three studies were mostly young, White, female, college students in the Midwest. Future research, therefore, is recommended using more diverse samples.

The effect sizes obtained from the MANOVA and univariate analyses represent another limitation of this project. Despite findings of significant F values, the effect sizes measured by the partial Eta squared ranged from .020 to .110. This result revealed that the independent variables (gender, prior counseling, and prior consideration of seeking counseling) accounted for only 2% to 11% of the total variability of the BEACS scores raising questions about the actual significance of these findings. Future research, therefore, should further examine the relationship between these variables and explore potential differences in additional effect sizes.

One final limitation is rather significant. When investigating the predictive validity of the BEACS, the intent to seek counseling was assessed and not actual behavior. In the future, it is important to determine if responses to the BEACS can predict individuals' actual use of counseling services.

Strengths of the Research

Regardless of the limitations associated with this project, there were many strengths to the methodology and analyses employed in the various studies. First, the BEACS was based on a sound foundation of social psychological theories of attitudes. Given that measurement scales are collections of items that reveal an underlying theoretical variable, a solid theoretical model is a necessary foundation for any device (DeVellis, 1991). However, few instruments in a counseling psychology domain have been developed with consideration and application of a social psychology theory. The BEACS, in comparison, incorporated the conceptual framework proposed by the MMA (Fishbein, 1963) and the TRA (Fishbein & Ajzen, 1975), and also utilized formulas suggested in these models for the calculation of an individual's attitude scores. Although some researchers (Mackenzie et al., 2004; Ægisdóttir & Gerstein, in press) have based their instruments on social psychological theories of attitude, they failed to employ an actual formula when constructing their measure. While these previous instruments have the advantage of parsimony (they combined belief and evaluation concepts into a single item), an advantage of the BEACS is that it was based on a sound theoretical formula adapted to measure attitudes toward seeking counseling. Moreover, by measuring beliefs and evaluations on separate scales, the BEACS can provide more information regarding what respondents think about seeking counseling.

Second, the BEACS has a methodological strength as its items were generated based on a qualitative, pilot study involving a target population. Scale developers often create items by themselves or by collaborating with other experts in the domain of interest (e.g., Fischer & Turner, 1970; Pipes et al., 1985). Further, sometimes developers

extract some items from previous instruments (e.g., Fischer & Farina, 1995; Kushner & Sher, 1989; MacKenzie et al., 2004). While these methods are time-effective and cost-saving when compared to a methodological exploration involving the target population, such methods may be limited in that the items generated may not reflect the target population's opinions. For instance, when the researcher's interest is to measure college students' attitude toward counseling, items derived from psychologists may not reflect students' perceptions accurately or sufficiently. Yet few researchers generate items from the target population because this method requires a laborious qualitative study. However, the present author believes this method enables researchers to develop a deeper understanding of the phenomena of interest (e.g., help-seeking attitudes). Further, the researcher felt confident that having almost equal numbers of men and women helped to ensure a more accurate representation of the target population.

Another methodological strength of the BEACS is that the initial responses from the qualitative pilot study were reviewed by multiple experts. By using experts and obtaining high inter-rater reliability, possible bias in the item selection was reduced, and content validity for the scale was enhanced.

Next, the five-factor model of the BEACS was verified through various methods including both exploratory and confirmatory factor analyses as well as validity tests. In the exploratory factor analysis stage of the scale development, both orthogonal and oblique rotation methods were utilized and compared. For the confirmatory factor analysis, both pattern matrix and structure matrix were reviewed and compared. To further test the validity of the BEACS, correlations, MANOVA's, and regression analyses were conducted. As a result, it was found that the BEACS is a highly reliable and valid

instrument to measure attitudes toward counseling and to predict behavioral intention to seek counseling. The present author believes that the validity and reliability for the BEACS was fortified by using various statistical methods as well as recruiting different samples for each study.

Implications for Future Research and Practice

Although there is a need for further investigation to explore the psychometric properties of the BEACS, the findings of the current project have implications for future research and practice. Most importantly, future studies should investigate the normative component of attitudes toward seeking counseling. In the current study, the normative component was measured by the same scale format as the subjective component. Future research relying on the original format of the TRA would be beneficial when exploring the influences of the normative component on attitudes toward seeking counseling. Furthermore, there is a need to develop a measure that incorporates more recent theories (e.g., TPB) when investigating attitudes toward seeking counseling and actual behaviors linked with help-seeking. Although some instruments such as the BAPS and the IASMHS were based on concepts tied to the TPB, they did not incorporate the actual formula linked with this theory when recommending a scoring system. The present author believes that both counseling psychology and social psychology would benefit from incorporating theoretical formulas when measuring attitudes toward counseling as this would create a more solid foundation for empirical research.

It is recommended that further research also be conducted to explore both convergent and predictive validity for the BEACS. For instance, convergent validity might be assessed comparing responses to the BEACS with responses to the 29-item

ATSPPH, the 10-item ATSPPH, or the IASMHS. Each of these instruments measure attitudes toward seeking mental health services. Instruments such as the Personal Problems Inventory (PPI; Cash, Begley, McCown, & Weise, 1975) might also be administered with the BEACS to predict an individual's behavioral intention to seek counseling based on their BEACS responses.

The current research also has implications for counseling practitioners. Specifically, use of the BEACS may benefit mental health practitioners in college or university settings as this instrument was developed targeting undergraduate and graduate-level university students. The items on the BEACS reflect contemporary college students' perceptions about counseling as students themselves particpated in the item generation process. The length of the BEACS is comprehensive enough to capture various aspects of beliefs and evaluations about seeking counseling as it contains 28 belief items and 28 evaluation items. Therefore, administering the BEACS can be useful to college counseling practitioners who are interested in assessing their students' beliefs and evaluations regarding the use of services offered by college counseling centers. University counseling centers can utilize the information collected through the BEACS as a basis for the expansion of outreach services, to advertise their counseling programs, and to orient new clients to counseling. For instance, a college counseling practitioner can learn their students' beliefs about counseling by reviewing scores on each item or each factor linked to the belief scale. If a commonly shared myth is found (e.g., significantly high or low mean scores on a certain item or factor), the pracitioner may want to make an effort to correct the misbelief through an advertisement or an orientation session. Similarly, the evaluation scale can also provide a practitioner with information about

which attributes of counseling are more significant to students.

Conclusion

In summary, findings from this series of studies suggested that the BEACS is a promising measure to assess attitudes toward seeking counseling. The scale was found to be highly reliable, and support was obtained to demonstrate its construct, concurrent, and predictive validity. The BEACS is grounded in rich social psychological constructs linked with attitudes. Therefore, the BEACS has the potential to aid future researchers when investigating attitudes toward counseling by addressing demographic (e.g., gender, age, SES), cultural (e.g., ethinicity, acculturation level), and psychological variables (e.g., degree of distress, interpersonal openness). The BEACS can also aid researchers who investigate variables that may be predicted by help-seeking attitudes such as willingness to seek counseling, preferences for psychological help sources, and help-seeking behavior. Finally, the BEACS can be employed when investigating the relationships between pre-therapeutic attitudes and therapeutic outcomes (e.g., the therapeutic alliance, premature drop-out, or significant reduction in symptomology).

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APPENDIX A

Introductory Letter for Study 1

Thank you for your willingness to participate in this study of "Perceptions about Psychological Services." The principal investigator for this study is Seong-in Choi, M.A., and her faculty supervisor is Dr. Lawrence Gerstein. The department office is TC 622 Ball State University, Muncie, Indiana.

As participating in this study, you will be asked to respond to a survey that includes several open-ended questions related to seeking psychological help. A demographic sheet will be also provided to ask you some background information. Please read the instructions to each one very carefully before answering. Do not put your name on any of the instruments to ensure anonymity and note that your responses will only be used for research purpose and reported only as group data. In addition, please make sure that all participants of this study are supposed to be 18 years old or older.

As a reward of participating in this study, you will receive one (1) hour of research credit for a CPSY course you are enrolled in this semester. If at any time before or during this session you do not want to participate in this study, you can withdraw from the study anytime without any prejudice from this investigator. Also feel free to ask any questions about this study before or at any time during this session. There is no foreseeable risk associated with this study. However, if you find yourself disturbed by some of the survey questions, please be advised that there are psychological services on campus available for students. If this is a case, please contact Counseling Center (LU320) at (765) 285-1736.

For questions about your rights as a research subject, please contact Melanie L. Morris, Coordinator of Research Compliance, Office of Academic Research and Sponsored Programs, Ball State University, Muncie, IN 47306, (765) 285-5070, irb@bsu.edu.

When you have completed responding to all the questions, please hand them back to me. Thank you again for participating.

Seong-in Choi, M.A.
Primary Investigator
Schoi2@bsu.edu

Lawrence Gerstein, Ph.D.
Faculty Supervisor
Rangzen@aol.com

APPENDIX B

Demographic Form for Study 1

For the questions 1 through 3, please mark "X" in the blank which is correspond to your answer.

1. I am: _____ Male _____ Female

2. My ethnic/racial background is:
_____ African American/Black
_____ Arab/Middle-Eastern American
_____ Asian American/Pacific Islander
_____ Caucasian American/White
_____ Hispanic/Latino
_____ Native American
_____ Other: _____

3. I am a:
_____ Freshman _____ Sophomore _____ Junior _____ Senior

For the following three questions, 4 through 6, please write down your answers in the blanks.

4. I am _____ years old

5. My area of study (major) is: _____

6. I am the ___ th child in my family and have _____ brother(s) and _____ sister(s)

For the following two questions, 7 and 8, please mark "X" on the statement which is correspond to your experience or thoughts.

7. I have:
_____ An experience of seeking professional psychological help
_____ NO experience of seeking professional psychological help

8. I have:
_____ Ever thought of seeking professional psychological help
_____ NEVER thought of seeking professional psychological help

APPENDIX C

Survey for Study 1

This survey consists of five (5) Parts. Please carefully read the instructions for each Part before you answer the following questions. When answering each question, please write whatever comes to your mind. There is no right or wrong answers. Start with Part 1 and go on to the next page when you finish that page.

Part 1.
Imagine that you have experienced a psychological problem for a long time, and answer the following questions.

1.1. Would you go to get professional psychological services?

_____

_____

1.2. Why or why not?

_____

_____

_____

_____

_____

Go to the next page →

Part 2.

The following are more specific questions concerning seeking psychological services. Imagine that you have experienced a psychological problem for a long time, and answer the following questions.

2.1. What benefit do you expect from seeking psychological services?

_____

_____

_____

_____

2.2. What would prevent you from seeking psychological services?

_____

_____

_____

_____

2.3. List any other positive and/or negative aspects for you that are related to your seeking psychological services:

_____

_____

_____

_____

Go to the next page →

Part 3.

This part is about other people's perceptions and reactions to you seeking psychological services. When answering these questions, please think about people you are close to and imagine what they might think about you seeking psychological services.

3.1. Who might be concerned about you seeking psychological services? In other words, who might have negative attitudes toward your seeking psychological services? Also indicate how you know this person.

_____

_____

_____

Why do you think this person would be concerned?

_____

_____

_____

3.2. Who might suggest that you seek psychological services?

_____

_____

_____

Why might this person(s) suggest that you seek psychological services?

_____

_____

_____

Go to the next page →

3.3. When you consider seeking psychological services, are you concerned about how others might perceive you? If so, what people (e.g., mother, father, friend, lover)?

_____

_____

_____

How would such persons react to you seeking psychological services?

_____

_____

_____

Part 4.

In the space below, please describe any images, perceptions, thoughts or expectations you have about psychological services.

_____

_____

_____

_____

_____

_____

Part 5.

What have you heard about psychological services from the media or other people?

_____

_____

_____

_____

This is the end of the survey. Thank you very much!

APPENDIX D

Introductory Letter for Studies 2 and 3

Thank you for your willingness to participate in this survey about attitudes and expectation about psychological services. The primary researcher of this study is Seong-In Choi, M.A. (schoi2@bsu.edu) and her faculty supervisor is Dr. Lawrence Gerstein (lgersein@bsu.edu). This survey consists of five (5) parts and will take you about 30 minutes to complete.

As a reward of participating in this study, you will receive EITER a research credit OR an opportunity to be randomly selected for a gift certificate. If you are a BSU CPSY student, you will receive one (1) hour of research credit for a CPSY course you are enrolled in this semester. If you are not a CPSY student, but your instructor announced this study in class as an extra credit assignment, you will also receive credits. For the other participants who do not receive a research credit, two will be randomly selected to receive a $40 GIFT CERTIFICATE at AMAZON.COM.

In order to receive a research credit or a prize, you need to email to David Smith at perceptionstudy1@yahoo.com and let him know your participation in this survey. If you want a research credit, provide him with 1) your survey nickname, 2) your real name, 3) course number and title, and 4) your instructor's name. If you want to be entered to random drawing for a prize, simply provide your nickname and indicate that you want a prize. David is not involved in this study and has no access to your response, but is helping the researcher with confirming for credits and distributing prizes. All other questions regarding the study should be directed to the researcher at schoi2@bsu.edu.

This survey is completely anonymous and the results will be reported only as group data. Your participation is voluntary and you are free to withdraw at any time for any reason without prejudice or penalty from the researcher. For questions about your rights as a research subject, please contact Melanie L. Morris, Coordinator or Research Compliance, at the Office of Academic Research and Sponsored Programs at Ball State University, via email (irb@bsu.edu) or telephone (765-285-5070).

Please start with PART I, and when you finish all five parts, submit your answer by clicking "Continue" button.

APPENDIX E

Demographic Form for Studies 2 and 3

1. What is your gender?
   ○ A. Female ○ B. Male

2. What is your nationality?
   ○ A. a USA student ○ B. an international student

3. What is your ethnic/racial background?
   ○ A. African/Black
   ○ B. Arab/Middle-Eastern
   ○ C. Asian/Pacific Islander
   ○ D. Caucasian/White
   ○ E. Hispanic/Latino
   ○ F. Native American
   ○ Other: [ ]

4. Please enter your area of study (major).
   [ ]

5. What is your college year?
   ○ A. Freshman
   ○ B. Sophomore
   ○ C. Junior
   ○ D. Senior
   ○ E. Graduate student

6. What is your age? [ ]

7. In your family, what is your birth order?
   ○ A. the older child with only one younger sibling
   ○ B. the oldest child with two or more younger siblings
   ○ C. the younger child with only one older sibling
   ○ D. the youngest child with two or more older siblings
   ○ E. a middle child with both older and younger siblings
   ○ F. the only child

8. Have you experienced psychological services?
   ○ Yes ○ No

9. Have you thought of seeking psychological services?
   ○ Yes ○ No

APPENDIX F

BEACS

Subjective Belief Scale

Directions. Imagine you have been experiencing a psychological concern for a long time. The following statements describe some possible outcomes of your seeking psychological services. Please rate the extent to which you expect each of the following statements to happen as a result of your seeking psychological services.

"If I went to see a counselor…,"

		Extremely unlikely	Unlikely	Slightly unlikely	Slightly likely	Likely	Extremely likely
1	I would learn new behaviors and skills.	○	○	○	○	○	○
2	I would be able to understand my problems.	○	○	○	○	○	○
3	I would be able to lead a more productive life.	○	○	○	○	○	○
4	~~I would be given medicine~~.	○	○	○	○	○	○
5	~~I would be forced to express my feelings~~	○	○	○	○	○	○
6	~~I would be emotionally supported by the counselor.~~	○	○	○	○	○	○
7	~~It would cost me a lot of money.~~	○	○	○	○	○	○
8	~~I would have to confront my problems.~~	○	○	○	○	○	○
9	I would have a better state of mind.	○	○	○	○	○	○
10	Counseling would give me a feeling of relief.	○	○	○	○	○	○
11	~~It would cost me a lot of time and energy.~~	○	○	○	○	○	○
12	~~I would have to change the ways that are familiar to me.~~	○	○	○	○	○	○
13	I would have to reveal thoughts and experiences of which I am ashamed.	○	○	○	○	○	○
14	~~Counseling would help me cope with the problems that effect my life.~~	○	○	○	○	○	○

Subjective Belief Scale (Continued)

		Extremely unlikely	Unlikely	Slightly unlikely	Slightly likely	Likely	Extremely likely
15	~~I would get an outside, objective perspective.~~	○	○	○	○	○	○
16	I would gain more confidence that I can manage things in my life.	○	○	○	○	○	○
17	~~I would get a feeling of comfort.~~	○	○	○	○	○	○
18	It would open my eyes to different sides of things.	○	○	○	○	○	○
19	It would prevent my problem from getting worse.	○	○	○	○	○	○
20	~~I would become too dependent on my counselor.~~	○	○	○	○	○	○
21	Counseling would make me nervous.	○	○	○	○	○	○
22	~~I would have someone to talk to about my problems and concerns.~~	○	○	○	○	○	○
23	Counseling would make me embarrassed.	○	○	○	○	○	○
24	~~I would be encouraged by the counselor.~~	○	○	○	○	○	○
25	I would have to dig up painful memories that I have been trying to forget.	○	○	○	○	○	○
26	~~The counseling process would be Freudian-style (e.g., working with a conservatively-dressed counselor, lying down on a couch with my eyes closed).~~	○	○	○	○	○	○
27	~~I would get useful information and advice.~~	○	○	○	○	○	○
28	~~I would not be understood by the counselor.~~	○	○	○	○	○	○
29	I would have to talk about my personal history to a stranger.	○	○	○	○	○	○
30	~~It would not bring any solution to my problem.~~	○	○	○	○	○	○

Subjective Belief Scale (Continued)

		Extremely unlikely	Unlikely	Slightly unlikely	Slightly likely	Likely	Extremely likely
31	~~My counselor would have good listening skills.~~	○	○	○	○	○	○
32	~~My counselor's personality would not match well with mine.~~	○	○	○	○	○	○
33	~~My counselor would be intelligent.~~	○	○	○	○	○	○
34	My counselor would be biased.	○	○	○	○	○	○
35	~~My counseling would be well trained and have the skills to help people.~~	○	○	○	○	○	○
36	~~My counselor would be professional.~~	○	○	○	○	○	○
37	~~My counselor would have his or her own issues that he or she could not deal with.~~	○	○	○	○	○	○
38	My counselor would not actually do anything.	○	○	○	○	○	○
39	My counselor would try to manipulate me.	○	○	○	○	○	○
40	~~My counselor would be caring.~~	○	○	○	○	○	○
41	My counselor would be judgmental.	○	○	○	○	○	○
42	~~My counseling would be open-minded.~~	○	○	○	○	○	○
43	My counselor would only be interested in my money, but not concerned about my welfare.	○	○	○	○	○	○
44	~~My counselor would keep my secrets.~~	○	○	○	○	○	○
45	~~My counselor would be highly educated.~~	○	○	○	○	○	○

Note. Single strikethroughs indicate items deleted after Study 2. The remaining 27 items were used for Study 3. Double strikethroughs indicate items additionally deleted after Study 3. The remaining 15 items were selected for the final BEACS.

Subjective Evaluation Scale

Directions. Please rate the extent to which you would find these possible outcomes of psychological services unfavorable to favorable.

		Very unfavorable	Unfavorable	Slightly unfavorable	Neutral	Slightly favorable	Favorable	Very favorable
1	Learning new behaviors and skills	○	○	○	○	○	○	○
2	Understanding my problems	○	○	○	○	○	○	○
3	Leading a more productive life	○	○	○	○	○	○	○
4	~~Prescribed medicine~~	○	○	○	○	○	○	○
5	~~Forced to express my feelings~~	○	○	○	○	○	○	○
6	~~Emotionally supported by the counselor~~	○	○	○	○	○	○	○
7	~~Costing a lot of money~~	○	○	○	○	○	○	○
8	~~Confronting my problems~~	○	○	○	○	○	○	○
9	Gaining a better state of mind	○	○	○	○	○	○	○
10	Getting a feeling of relief	○	○	○	○	○	○	○
11	~~Consuming time and energy~~	○	○	○	○	○	○	○
12	~~Changing the ways that are familiar to me~~	○	○	○	○	○	○	○
13	Revealing thoughts and experiences of which I am ashamed	○	○	○	○	○	○	○
14	~~Coping with the problems that effect my life~~	○	○	○	○	○	○	○
15	~~Getting an outside, objective perspective~~	○	○	○	○	○	○	○

Subjective Evaluation Scale (Continued)

		Very unfavorable	Unfavorable	Slightly unfavorable	Neutral	Slightly favorable	Favorable	Very favorable
16	Gaining more confidence that I can manage things in my life	○	○	○	○	○	○	○
17	~~Getting a feeling of comfort~~	○	○	○	○	○	○	○
18	Opening eyes to different sides of things	○	○	○	○	○	○	○
19	Preventing a problem from getting worse	○	○	○	○	○	○	○
20	~~Becoming too dependent on my counselor~~	○	○	○	○	○	○	○
21	Feeling nervous	○	○	○	○	○	○	○
22	~~Having someone to talk about my problems and concerns~~	○	○	○	○	○	○	○
23	Feeling embarrassed	○	○	○	○	○	○	○
24	~~Being encouraged~~	○	○	○	○	○	○	○
25	Digging up painful memories that I have been trying to forget	○	○	○	○	○	○	○
26	~~Going through a Freudian-style therapy (e.g., lying on a couch with eyes closed)~~	○	○	○	○	○	○	○
27	~~Getting useful advice and information~~	○	○	○	○	○	○	○
28	~~Not being understood~~	○	○	○	○	○	○	○
29	Talk about my personal story to a stranger	○	○	○	○	○	○	○
30	~~Getting no solution to my problem~~	○	○	○	○	○	○	○

Subjective Evaluation Scale (Continued)

Directions. The following list presents possible characteristics of your counselor. Please rate the extent to which you would find each of the characteristics unfavorable to favorable.

		Very unfavorable	Unfavorable	Slightly unfavorable	Neutral	Slightly favorable	Favorable	Very favorable
31	~~Good listening skills~~	○	○	○	○	○	○	○
32	~~Having a personality not matching with mine~~	○	○	○	○	○	○	○
33	~~Intelligent~~	○	○	○	○	○	○	○
34	Biased	○	○	○	○	○	○	○
35	~~Well trained and skilled to help people~~	○	○	○	○	○	○	○
36	~~Professional~~	○	○	○	○	○	○	○
37	~~Having his or her own issues that he or she cannot deal with~~	○	○	○	○	○	○	○
38	Doing actually nothing	○	○	○	○	○	○	○
39	Trying to manipulate me	○	○	○	○	○	○	○
40	~~Caring~~	○	○	○	○	○	○	○
41	Judgmental	○	○	○	○	○	○	○
42	~~Open-minded~~	○	○	○	○	○	○	○
43	Interested in my money, but not concerned about my welfare	○	○	○	○	○	○	○
44	~~Confidential~~	○	○	○	○	○	○	○
45	~~Highly educated~~	○	○	○	○	○	○	○

Note. Single strikethroughs indicate items deleted after Study 2. The remaining 27 items were used for Study 3. Double strikethroughs indicate items additionally deleted after Study 3. The remaining 15 items were selected for the final BEACS.

Social Norm References

Directions. This Part of the survey will ask you to consider how other individuals might perceive you if you sought psychological services.

Imagine you have been experiencing a psychological concern and you are thinking about going to see a counselor to get help with this concern. Before you make a decision though you want to consider other people would think about your going to see a counselor. From the following list, indicate 3-5 people who you would consider as the most important to you in making a decision to seek or not seek psychological services.

○ A. Father
○ B. Mother
○ C. Brother
○ D. Sister
○ E. Spouse (husband/wife)
○ F. Partner (fiancé or boy/girlfriend)
○ G. Children (daughter/son)
○ H. Other relatives
○ I. Best friend (very close friend)
○ J. Friends (peers/classmates)
○ K. Teacher (professor or academic advisor)
○ L. Coach
○ M. Religious leader
○ N. Boss
○ O. Acquaintances
○ Other: [ ]

Normative Belief Scale

Directions. Keeping in mind these 3-5 people, please respond the following items.

The following list presents some anticipated reactions of these people if they knew that you were seeking psychological services. Please rate the extent to which you expect most of these people to display each of these reactions.

"If I went to see a counselor, most of these people would…"

		Extremely unlikely	Unlikely	Slightly unlikely	Slightly likely	Likely	Extremely likely
1	Not mind.	○	○	○	○	○	○
2	Become hopeful thinking that counseling would help.	○	○	○	○	○	○
3	Think I am a weak person who cannot work things out on my own.	○	○	○	○	○	○
4	Feel quilt thinking that they did something wrong to me.	○	○	○	○	○	○
5	Think I should have gone to them for help instead.	○	○	○	○	○	○
6	~~Not be driven away from me.~~	○	○	○	○	○	○
7	Be supportive of my decision.	○	○	○	○	○	○
8	Not worry so much.	○	○	○	○	○	○
9	Think there was something seriously wrong with me.	○	○	○	○	○	○
10	Be scared by the fact I am seeing a counselor.	○	○	○	○	○	○
11	Be proud of me as I sought out a way of helping myself out.	○	○	○	○	○	○
12	Not look down on me.	○	○	○	○	○	○
13	~~Think I should have relied on my religion instead.~~	○	○	○	○	○	○
14	Be happy for me as I am getting helped.	○	○	○	○	○	○
15	~~Think I am crazy.~~	○	○	○	○	○	○
16	Make fun of me.	○	○	○	○	○	○

Note. Strikethroughs indicate the items deleted after Study 2. The remaining 13 items were used for Study 3 and included in the final BEACS.

Normative Evaluation Scale

Directions. This section will ask you to evaluate each of the reactions mentioned above. Please rate the extent to which you would find the following reactions unfavorable to favorable keeping in mind most of the 3-5 people you listed earlier.

		Very unfavorable	Unfavorable	Slightly unfavorable	Neutral	Slightly favorable	Favorable	Very favorable
1	Not mind my seeking counseling	○	○	○	○	○	○	○
2	Become hopeful thinking that counseling would help	○	○	○	○	○	○	○
3	Think I am a weak person who cannot work things out on my own	○	○	○	○	○	○	○
4	Feel guilty thinking that they did something wrong to me	○	○	○	○	○	○	○
5	Think I should have gone to them for help instead	○	○	○	○	○	○	○
6	~~Not be driven away from me~~	○	○	○	○	○	○	○
7	Be supportive of my decision	○	○	○	○	○	○	○
8	Not worry so much	○	○	○	○	○	○	○
9	Think there was something seriously wrong with me	○	○	○	○	○	○	○
10	Be scared by the fact I am seeing a counselor	○	○	○	○	○	○	○
11	Be proud of me as I sought out a way of helping myself out	○	○	○	○	○	○	○
12	Not look down on me	○	○	○	○	○	○	○
13	~~Think I should have relied on my religion instead~~	○	○	○	○	○	○	○
14	Be happy for me as I am getting helped	○	○	○	○	○	○	○
15	~~Think I am crazy~~	○	○	○	○	○	○	○
16	Make fun of me	○	○	○	○	○	○	○

Note. Single strikethroughs indicate the items deleted after Study 2. The remaining 13 items were used for Study 3 and included in the final BEACS.

APPENDIX G

BAPS (Ægisdóttir & Gerstein, in press)

Using the scale below, please check the circle that best represents your views on the following statements

Strongly Disagree (1) (2) (3) (4) (5) (6) Strongly Agree

1. If a good friend asked my advice about a serious problem, I would recommend that he/she see a psychologist.	(1) (2) (3) (4) (5)(6)
2. I would be willing to confide my intimate concerns to a psychologist.	(1) (2) (3) (4) (5)(6)
3. Seeing a psychologist is helpful when you are going through a difficult time in your life.	(1) (2) (3) (4) (5)(6)
4. At some future time, I might want to see a psychologist.	(1) (2) (3) (4) (5)(6)
5. I would feel uneasy going to a psychologist because of what some people might think.	(1) (2) (3) (4) (5)(6)
6. If I believed I was having a serious problem, my first inclination would be to see a psychologist.	(1) (2) (3) (4) (5)(6)
7. Because of their training, psychologists can help you find solutions to your problems.	(1) (2) (3) (4) (5)(6)
8. Going to a psychologist means that I am a week person.	(1) (2) (3) (4) (5)(6)
9. Psychologists are good to talk to because they do not blame you for the mistakes you have made.	(1) (2) (3) (4) (5)(6)
10. Having received help from a psychologist stigmatizes a person's life.	(1) (2) (3) (4) (5)(6)
11. There are certain problems that should not be discussed with a stranger such as a psychologist.	(1) (2) (3) (4) (5)(6)
12. I would see a psychologist if I was worried or upset for a long period of time.	(1) (2) (3) (4) (5)(6)
13. Psychologists make people feel that they cannot deal with their problems.	(1) (2) (3) (4) (5)(6)
14. It is good to talk to someone like a psychologist because everything you say is confidential.	(1) (2) (3) (4) (5)(6)
15. Talking about problems with a psychologist strikes me as a poor way to get rid of emotional conflicts.	(1) (2) (3) (4) (5)(6)
16. Psychologists provide valuable advice because of their knowledge about human behavior.	(1) (2) (3) (4) (5)(6)
17. It is difficult to talk about personal issues with highly educated people such as psychologists.	(1) (2) (3) (4) (5)(6)
18. If I thought I needed psychological help, I would get this help no matter who knew I was receiving assistance.	(1) (2) (3) (4) (5)(6)